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Clinical Lectures.

ECLAMPSIA.

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PART II.

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THE PATHOLOGICAL ANATOMY OF ECLAMPSIA.

Gentlemen:—If we now proceed to a consideration of the pathological anatomy of eclampsia, I must first state that changes in the kidneys are found in all fatal cases.

In twenty-two cases of thirty-seven, I found in the kidney evidences of acute or subacute processes, which principally affected the parenchyma of the kidney, and then would either cause an acute fatty degeneration of the epithelium of the kidney substance (so-called "kidney of pregnancy") yet seldom affecting the glomeruli or else it would reveal itself in a severe change of the parenchyma. In two of these cases the pathological changes were only of a slight degree. In other cases there existed simultaneously a chronic interstitial nephritis, to which the acute changes of the parenchyma had been added. Five such cases were found. Four were found in which there was only the interstitial nephritis. In one case there was a chronic interstitial nephritis on the left side, and a recent parenchymatous nephritis on the right side. Usually the parenchymatous changes affected both kidneys. In the majority of cases of simple or complicated parenchymatous changes there were numerous apoplexies of the parenchyma; this also occurred in one case of glomerulo-nephritis.

In two other cases there was only a hyperæmia of the kidneys, although to be sure the patient did not die until the twenty-ninth post-partum day, and then with pneumo-thorax. In this case, the renal symptoms had doubtlessly receded.

In one case only were we unable to discover any pathological change in the kidney. The patient had had twenty-one eclamptic attacks, half of which occurred post-partum, and died on the fifth day after delivery, from pneumonia. Perhaps in this case also the pathological conditions of the kidneys had receded, for during the eclamptic attacks her urine contained large quantities of albumin (¾ of its volume) as well as many hyaline and granulated cylinders, renal epithelium and red blood-corpuscles.

In the last of the thirty-seven cases both kidneys were found diseased in an extraordinary way, and this case is of special importance in reference to the meaning of eclampsia, and of special general interest. The right kidney was a so-called "fœtal cystic kidney," only about the size of a pigeon's egg. The right ureter was of unusual smallness, and thread-like. The left kidney was hydroscopic in a high degree, so that it only consisted of a single pyramid. The left ureter, from the entrance of the pelvis up, was enlarged to the size of one's little finger. We shall return to a consideration further on.

I add to this description of the pathological anatomy of the kidneys that of the ureters. In the thirty-seven cases in which I performed autopsies, the right ureter was found dilated in five instances, but only moderately and without, or at least very slight, hydronephrosis. In one case I found slight right-sided hydronephrosis without dilatation of the ureter. In a seventh case, finally, there was a left-sided hydronephrosis with dilatation of the ureter, and at the same time a right-sided cystic-kidney.

Regarding the condition of the brain, only thirty cases could be examined. In sixteen cases the brain substance and frequently also the pia-mater were found to be œdematous. In five cases there were apoplexies of the brain, which undoubtedly in every case had been the cause of death. In two other cases there were large hæmatoma of the pia-mater, and in five others a marked hyperæmia of the brain, and usually also of its coverings. In the remaining cases the quantity of blood and moisture in the brain was not abnormal.

To the pathological findings in eclampsia I will add the frequent disturbances in the liver substance. This very likely explains the presence of the icterus which sometimes is seen associated with eclampsia. That other serious disturbances, such as might result in death, are incident to the degeneration of the liver substance is very doubtful. It is now, however, considered very probable that the fat-embolisms found in the lungs and kidneys of eclamptics are due to the degeneration of the liver tissue, as Virchow had already suspected in 1886. The liver-cell embolisms which later were demonstrated by Gurgens, greatly strengthens this theory.

THE MORTALITY OF ECLAMPSIA.

Out of our two hundred cases of eclampsia, fifty died. The fatal cases were equally divided among the primiparæ and multiparæ in comparison to the number in which they occurred. In all, thirty-three primiparæ, and seventeen multiparæ died. Schaute, on the contrary, found the mortality among multiparæ considerably greater than that among primiparæ. The percentage he arrives at being 44.8 per cent. for multiparæ and 37.3 per cent. for primiparæ. Löhlein gives the percentage at 33.3 per cent. for multiparæ and 20.5 per cent. for primiparæ.

In no less than nine cases the death occurred during the pregnancy or birth, and this would have also happened a tenth time, had not Cæsarian section been performed upon the moribund woman in order to save the child. The child lived.

In the remaining forty cases deaths occured on the following days after delivery:

On the first day, fifteen times.

On the second day, nine times.

On the fourth and seventh days, four times.

On the fourteenth, fifteenth, twenty-ninth, thirty-fifth and forty-fourth days, one time each.

In ten cases the death did not occur either directly from the eclampsia or from its immediate results. These cases were as follows:

1. Primipara, twenty-four years old. Seven convulsions ante-partum. Eleven hours after the first convulsion, easy delivery with forceps. Fœtus dead. Death of patient on the second day. *Autopsy*: Acute miliary tuberculosis of the lungs, spleen and kidneys. Also, parenchymatous nephritis.

2. Primipara, thirty-seven years old. Six convulsions ante-partum. Forceps delivery of a premature dead fœtus. Death on the fifth day. *Autopsy* (by Dr. Virchow): Endocarditis verrucosa recurrens. Infarction of the kidney. Hæmorrhage of the kidney and pia-mater, nephritis parenchymatosa.

3. Primipara, thirty-seven years old. Five convulsions. Delivery by version and extraction. Death on the second day from acute sepsis. Nephritis parenchymatosa.

4. Primipara, twenty-one years old. Seventeen convulsions. Forceps delivery. Sepsis from the second day. Death on the fifth day.

5. Multipara, forty years old (ninth child). Five convulsions ante-partum. Spontaneous birth of living child. Death four hours after delivery from post-partum hæmorrhage. *Autopsy*: Endocarditis chronica fibrosa. Fatty heart. Nephritis parenchymatosa.

6. Primipara, eighteen years old. Sixteen convulsions. Death fourteen days, post-partum from putrid bronchopneumonia, and right-sided, putrid pleuritis.

7. Multipara, seventh child. Twenty-six convulsions. Death fifteen days post-partum. *Autopsy*: Pneumonia. Peritonitis. Four days post-partum the patient was delirious. Possibly a case of septic infection.

8 and 9. Two primiparæ. Death on the twenty-ninth and thirty-fifth day respectively, from pyo-pneumothorax. In one case resulting from abscess of the liver.

10. Primipara, twenty-three years old. Ten convulsions. Death on the forty-fourth day. *Autopsy*: Endocar-

ditis ulcerosa, with infarcts of the lungs, etc.

If we can say with comparative certainty that in these ten cases death was not directly due to, or resulted from the eclampsia, the exact opposite must be said of the remaining forty. Of these, no less than seven died of apoplexy of the brain, and the rest in eclamptic coma.

The death rate of 25 per cent., is indeed not large in comparison with the statistics of former times. Dohrn* in his collection of 747 cases, gives the mortality rate at 29 per cent., Löhlein, 28 per cent., Scanzom, 32.8 per cent., C. Braun, 31.8 per cent., Hugenberger,† 35.1 per cent., Brummerstädt, 37.8 per cent., Hofmeier,‡ 39.4 per cent. The latest statistics are, however, far more favorable. Winckel, for instance, places the mortality at 7 to 10 per cent. G. Veit had only two deaths in sixty-six cases, and J. Veit goes so far as to say that in this disease, one may look forward with relative certainty to a favorable issue. The latest and largest statistics of Löhlein give a mortality rate of 23.7 per cent. Since, however, nearly all our cases came to the clinic after the disease had existed for a longer or shorter time, and the lighter cases from the polyclinic were seldom transferred to the clinic. This accounts for the comparative high rate of mortality among the more severe and lethal cases.

THE PROGNOSIS OF ECLAMPSIA.

The prognosis of this disease is more difficult to determine than perhaps that of any other. Whether the eclampsia occurs in primiparæ or multiparæ—in twin or single births—whether the kidney symptoms are predominant or not—all this fails to give us any key to the greatness of the danger to the patient. Löhlein in five cases of twin births with eclampsia, saw four die. Of our sixteen cases of twin births with eclampsia, only one died. Also the fact that eclampsia can occur post-partum does not justify us in holding forth any more favorable prognosis. In the literature on the subject, the question of prognosis is most contradictory. To me it has always seemed that the *sensu strictori* puerperal eclampsia belongs partly to the lightest form of the disease and partly to the most severe form. If an attack occurs shortly after the delivery of the fœtus, it not infrequently proves to be the only attack, or else is followed by only a few attacks. The entire disease runs its course in one or two hours. If, however, the first attack does not occur for some time after the birth—say half a day or longer—then the course of the disease is usually most severe. This may be seen from the following:

In our cases of puerperal eclampsia, the mortality was exactly the same as that of the eclampsias of pregnancy or birth, for out of twenty-eight cases, seven died; giving a percentage of 25 per cent. Out of these twenty-eight cases, in fourteen the first convulsion occurred within the first three hours after delivery. Of these fourteen cases, two died. Out of the other fourteen cases, in which the eclampsia occurred later, five ended fatally.

Of great prognostic weight is the number of attacks to which the patient is subjected. If the number of attacks exceeds fifteen or more, the prognosis becomes unfavorable, and the higher the number of attacks, the darker the outlook. Out of thirty-six of our cases, in which there were more than fifteen convulsions, twenty died. Winckel states that in cases where the number of convulsions has exceeded eighteen, he has never seen a recovery. Among the thirty-six cases observed by me, who had numerous convulsions and yet recovered, there were six who had between twenty-two and thirty-nine attacks. In cases with such numerous attacks, a favorable prognosis can only possibly be entertained when the eclampsia assumes a chronic character and the attacks do not follow each other too rapidly.

So, only one patient recovered, who had thirty-one convulsions, the first and last being seven days apart. During this time, the patient was given hypodermically, no less than 0.27 gramme of morphine. So this one patient recovered, who had thirty-nine convulsions, occurring within four days. She was not treated with morphine, but was anæsthetized three times with chloroform and kept under the influence of the drug for a long time. After the twenty-sixth convulsion, she even gave birth to a living and well-developed child.

*Dohrn, Zur Kentnis der Eklampsie Jubel. Programm. Marburg, 1867.

†Hugenberger, *Bericht über d. St. Petersburger Hebammenlehranstalt.* p. 128.

‡Hofmeier, *Zeitschr. f. Geb.* III. p. 249.

More, even, than the frequency of the attacks, must their character or nature be taken into consideration. In such cases of eclampsia in which the disease appears at the end of birth, or more frequently even during the first hour after the birth, and then ceases after one or two convulsions—in such cases the convulsions are usually of a light nature.

On the contrary, there rarely occur cases of eclampsia, of the most unfavorable prognosis, which occur sometimes intra-partum and sometimes post-partum, in the intensity of the convulsion is the most important feature. In these, the attacks occur, as a rule, in quick succession, and nothing but the most energetic use of morphine will influence them in any way whatever.

Any great increase of temperature must be regarded as a most unfavorable symptom. In thirty-seven cases there was a rise of temperature of 39° C. or over, either during the attacks or in the coma that followed; of these thirty-seven cases, fifteen died, or 40.5 per cent. In twenty-seven cases in which the temperature did not exceed 39.9° C., there were nine deaths, or 33⅓ per cent.

The rise of temperature depends greatly upon the number of convulsions. This may be seen by the following: In thirty-one cases in which the temperature reached 39° C. or over, the average number of convulsions was fifteen, while on the contrary in one hundred cases in which the temperature did not reach 39° C., the average number of attacks was only nine.

Of still greater importance than the temperature, is the pulse. When the pulse increases in poorness, that is in smallness and frequency, whether during the convulsions or after they have ceased, it is always a bad symptom.

In the majority of cases the prognosis remains very doubtful, not only during the continuance of the convulsions, but also during the coma. Subsequent diseases must also be taken into consideration, among these may be mentioned lung troubles (pneumonia) and septicæmia, as playing the most important rôle. From the first cause three of our patients died, and from the last, four.

The frequency of sepsis in eclampsia may be seen from all statistics of the disease. Löhlein, out of one hundred and six cases of eclampsia, reports forty deaths and four cases of sepsis; Brummerstädt out of 135 cases of eclampsia reports fifty-one deaths and thirteen cases of puerperal infection. C. Braun, out of forty-four cases, reports nine of puerperal infection, five of which ended fatally; Schauta out of 90 deaths from eclampsia, reports that twenty-seven were from puerperal infection. In Löhlein's latest statistics, there were to be seen only four cases of sepsis and pyæmia in three hundred and twenty-five cases of eclampsia. Yet it is very possible that in the thirty different reports from which these statistics are compiled, this point may not have received special consideration in some of them. The frequency of septic infection may be explained by the frequency of operative interference, but may also be connected with a certain predisposition to septic infection, on the part of eclamptic subjects, similarly as acutely anæmic subjects are liable to septic infection.

The prognosis for the child is even worse than for the mother.

When we look aside from cases of pure puerperal eclampsia, and also from such cases of eclampsia occurring in pregnancy in which the disease did not terminate the pregnancy (5 cases), further also from such cases in which the death of the mother occurred, ante-partum (9 cases), and finally from those cases in which at the time of the interruption of pregnancy by the disease, the fœtus was not yet viable, there remain still (153) children, of which forty-three were brought into the world dead; giving thus a mortality of 28 per cent.

The number of convulsions and the frequency of their recurrence affects the life of the child even more seriously than that of the mother. After twelve or thirteen attacks the child usually dies, and often even long before this. Yet we have thirteen cases to report in which the children were born alive, although they had endured fifteen convulsions while yet in the mother. But the majority of the children who had lived through so many maternal convulsions, died the next day.

The narcotics which we are frequently compelled to make such free use of, are also undoubtedly deleterious to the child's life. After the use of full doses of morphine we have frequently seen the children born to the world deeply narcotised by the drug. Even when all signs of asphyxia

were absent, the respirations of the child were always shallow and slow, and its movements were few and torpid. Occasionally the pupil was fixed and contracted. Some of these children, although breathing regularly, could not be made to cry, by any exciting means.

A superficial examination of such children would lead one to believe that they were asphyxiated, but a closer view will soon reveal the true state of affairs.

THE THERAPY OF ECLAMPSIA.

The therapy of eclampsia has heretofore been one of pure empiricism. In distinction to the largely used treatment by chloroform anæsthesia, which has been so extensively employed, as it was also at this clinic, I prefer the use of morphine in large doses, as suggested by G. Veit. As an initial I give 0.03 gramme, hypodermically, and if the convulsions do not cease soon follow it by additional doses. In the course of treatment we seldom give over 0.06 gramme, or indeed altogether, although in cases that progressed chronically we have, during the course of several days given much more; in one case giving as much as 0.27 gramme in four days, with good results to the mother.

When the condition of the pupils or of the pulse would indicate that the further exhibition of the drug is not advisable, and in case the attacks still continue, I substitute chloral, by rectal injection, in 2.0 or 3.0 gramme doses.

The use of chloform seems eminently suited in those comparatively rare cases, where the attacks return after pretty regular intervals. In all other cases one must either prolong the anæsthesia for a very long time—which to us does not seem advisable—or else administer an anæsthetic at the first intimation of the approach of an attack; in this latter case, however, the remedy always comes too late to abort the attack.

During the continuance of the eclampsia, we make no use of either diaphoretics, bromides, wet-packs, or baths. Indeed we shun all unnecessary handling of the patient, because this only too frequently will excite an attack. There have been cases in which a careful digital examination of the uterus, the expression of the placenta, a change of the patient's bedding, and even the puncture of the hypodermic needle have been sufficient to excite a convulsion.

When in deep coma, the rattling in the upper air passages becomes continued, asphyxia is imminent. This can be prevented by bending the patient forward over the side of the bed, so that the head is greatly lowered. In this way very large quantities of mucous will be discharged from the mouth, the respiration will become free and the cyanosis will disappear. The mucous may also be removed with small brushes of cotton or small sponges, which are inserted into the flames, one after the other, by the dozen. In this way the same results are obtained. In many cases I feel convinced that we have saved our patients from an immediate death from asphyxia by these means. I also claim the great importance of the watchful care of a physician at the bedside of the patient, so as to be always ready in case of any such emergency. In Löhlein's recent publication on the subject we may read that Schatz recommended the frequent sinking of the head of eclamptics, but apparently not for the same reason.

Regarding operative interferences, v. Herff's* recently recommended practice of rupturing the amniotic sac in order to accelerate the birth, is at all events worth the trial, and in multiparæ may be regarded as a pretty certain means of accomplishing this end. The frequent use of the forceps in cases of well dilated cervix with a deep position of the head, is equally recommended on all sides. Version, for instance, in cases of a contracted cervix, and extraction with the aid of free incisions, does not seem to me to be recommendable. On the contrary, I consider Cæsarean section as practiced by Halbertsma and Kaltenbach—the requirements of v. Herff being fulfilled—as a both justifiable and valuable procedure. The requirements of v. Herff are to the effect that if the child is still alive in a severe case of eclampsia, and a natural birth is impossible, or the dilatation of the cervix is delayed, then this operation is justifiable. Now, when the mortality of the operation has been so greatly reduced, a successful result is very possible.

In how far the use of the forceps and version affect the mortality, I should like to elucidate by giving the following data: Out of sixty-four forcep deliveries, ten

*v. Herff, *Berliner Klinik*, Heft 33, 1891.

died; while in nine cases of version, five resulted fatally.

If we look aside from the ten deaths occurring ante-partum, the mortality table might be arranged as follows:

In 111 spontaneous births, there were 24 deaths, or a death rate of 21.6 per cent.; while in 77 of instrumental deliveries, there were 16 deaths, or a death rate of 20.8 per cent.

Among the last were included at least three cases of sepsis. If those cases in which version was used were to have been excluded from the statistics, the death rates in favor of the operative births would have been still more favorable.

That the termination of delivery beneficially affects the disease—since in a large number of cases the attacks then quickly cease—is denied by both Brummerstädt and Schauta. But all the same the clinical facts undoubtedly point to the beneficial influence of a speedy termination of the birth. If I search through my own cases and see what sort of an answer they would return to such a question, I find the following:

In seventy-three cases of spontaneous births, no attacks occurred after delivery in forty-three cases, and three or over in thirteen patients.

In seventy cases of operatively ended pregnancy, no attacks occurred after delivery in forty-nine cases; one or two attacks in twelve cases, and three or more attacks in nine cases.

In 143 cases, the eclampsia ceased with the completion of delivery in ninety-two cases. It returned once or twice in twenty-nine cases, and more than three times in twenty-two instances.

In about 85 per cent. of cases the eclampsia ceases with delivery, or else soon after.

(*To be continued.*)

CHOREA.

Out of a total of 18,074 children treated in five years at the polyclinic of the Charité in Berlin, Meyer found 121 instances of chorea, or a proportion of 6.6 per cent.; 11 of these cases (nine per cent.) were at the same time rheumatic; 3 had, along with their rheumatism and chorea, an organic affection of the heart; 13 (ten per cent.) had chorea and heart disease without the rheumatism.—*Berliner klin. Wochens.*

THE OPERATIVE TREATMENT OF CLUB-FOOT; THE DIAGNOSIS AND TREATMENT OF HIP-JOINT DISEASE.

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Gentlemen:—I shall first operate upon this case of double congenital club foot. This little baby 7 months old, has a talipes equino-varus of the left foot, and a varus of the right. Instead of treating it for many months by instruments, I propose to divide at once the contracted parts, placing the foot in a super-corrected position, and dressing it with plaster of Paris. We can accomplish more in a few moments in this way, with equally good result than can be done by three or four months of careful treatment with the best machines that have ever been devised. Always remember in operating for club-foot: First, to manipulate the foot thoroughly in order to overcome the contract*ed* parts; this will put the contract*ured* parts on the stretch; secondly, perform subcutaneous tenotomy on the parts which first offer resistance, and in the order in which they became contracted, beginning with the tendo Achillis. Having severed this tendon, pull the foot as nearly as possible into position; then cut another resisting portion, then manipulate the parts again before cutting any further, and if you find that the skin, is short and resisting, make an open incision, beginning just in front of the inner malleolus, and extending one-third the distance across the foot, putting the deep parts on the stretch by manipulation and then cutting them if necessary. If this fails to relieve the deformity, do a linear osteotomy through the neck of the astragalus; if this fails, remove a V-shaped piece from the astragalus; failing in this, remove the cuboid and scaphoid; and if you are still unsuccessful, perform Pirogoff's amputation. Of course, I am talking to you about extreme cases when alluding to amputative extensive osteotomy.

Having now divided the tendo Achillis in the right foot of our little patient, I shall endeavor to put the foot in a super-corrected position of calcaneus. As this cannot be done, I again introduce my tenotome through the same incision, and di-

vide any contracted bands that may be present. The abductor pollicis and the plantar fascia are next divided, and after further manipulation, I find that the long flexor of the great toe is short, so this is divided, and I am now able to super-correct both the varus and the equinus. To stop short of this, would be a great mistake. The foot is now dressed with Lister's "protective," and gauze, "bunching" it up over the wound on the plantar surface so as to make a little more pressure at this point, and so control the oozing of blood from the divided muscular branches. A gauze bandage, and a plaster of Paris dressing complete the dressing. It is only necessary to cut the plantar fascia in the left foot, and apply the same dressing. Only do open operation when subcutaneous ones are not safe nor efficient.

I shall next invite your attention to the general principles underlying the diagnosis and treatment of hip joint disease, and I shall begin by showing you this little girl with double congenital dislocation of the hip as I shall again allude to it when speaking of differential diagnosis. This child is wearing a machine which I devised, and which consists of a band around the hips, and two perineal straps, with adjustable and even pads so arranged that greater or less pressure may be made over the great trochanters, thus pressing them firmly against the ilium, and overcoming the tendency of the head of the bone to slip up on to the dorsum.

Our next patient is a little girl with true inflammatory disease of the hip joint. The joint is extremely sensitive, and is filled with fluid. Now, what are the general symptoms of joint disease? They are, pain, heat, swelling, pain on joint pressure, limited motion, spasm of muscles, atrophy, and deformity. What are the symptoms of hip-joint disease? All of these eight, and a few others. Patients with hip-joint disease have pain in the *knee*, flattening of the buttocks, obliteration of the gluteal fold, flexion of the limb, and in the first and second stages, abduction and apparent lengthening. If there be true disease of the bone, there is also atrophy of the limb; Barwell of England first called attention to this fact. In the case before us, there is no difficulty in determining an increase of local temperature, the presence of swelling, and the limitation of motion. To ascertain whether or not there is abduction, place the patient on the back in such a position that a line drawn between the anterior superior spines of the ilium will be parallel to another line drawn across the body at a higher level, and then noticing the position of the limbs with reference to the median line. In testing for flexion, we place the limb so that the popliteal space touches the table, when we find that the buttock arches very slightly, showing that there is still in this patient a little flexion. Thomas's method is also a good one. This deformity is due to spasm of the iliacus and psoas muscles. There is also some atrophy of this child's limb. The symptoms, then, would lead you to believe that this child had joint disease, but we would have nearly all these symptoms with sacro-iliac disease, or with disease located in the acetabulum external to the joint. If with your hands pressing firmly both iliac crests towards the median line, pain is not elicited we may know that there is no sacro-iliac disease. If the disease was located external to the acetabulum, or was extracapsular, you would have all the symptoms present in this case, *except pain on joint pressure.* But we have not yet differentiated between disease of the bone and of the soft parts. I know that there is disease of the bone here, because of the rapid atrophy of the soft parts. When the terminal plates of the nerves within the area of disease are pressed upon, the muscles supplying the diseased joint are, by reflex action, thrown into spasm; but when the soft parts are diseased, on account of their elasticity, but little pressure is made upon the nerve plates, and hence there is slight muscular spasm, slight deformity and slight atrophy.

Let us now differentiate between a true inflammatory disease of the joint, which has resulted in destruction of that joint, with possibly a dislocation and a case of congenital dislocation of the hip, or one of intracapsular fracture, or a diastasis of the head. If the great trochanter be above Nelaton's line, namely, a line drawn from the anterior superior spinous process of the ilium to the tuberosity of the ischium, you may know that there is a dislocation, a diastasis, an extracapsular fracture, or hip-joint disease. This child's great trochanter does not project above Nelaton's line. Many cases of hip-joint disease come to you after dislocation has taken place, and you will find from two to four

inches of shortening. How shall you distinguish between them and a case of congenital dislocation of the hip? Let us look again for a moment at the first case, the little girl with congenital dislocation of the hip. You would look for limited motion in every direction in case of hip-joint disease, but on examining this case, I find nearly perfect motion, no history of inflammatory action, and I can both feel and see the head of the bone as it rotates. If the dislocation were due to inflammatory disease, we would expect to find the head of the bone held up against the ilium, and probably not smooth, but more or less distorted. Is this a case of diastasis, or a true case of dislocation? I know it is not a diastasis, because I can feel the head of the bone, and because when I rotate the limb, the trochanter rotates in a circle, which it would not do if there were a diastasis. The mother says there has been no injury, hence, the condition must have occurred at birth, or in utero. No method of treatment with which I am familiar will effect any great improvement in the condition of such a case of double congenital dislocation of the hip short of an operation, and the contrivance for making pressure on the trochanters seems to me to be as useful as any yet devised. If there be a difference in the length of the limbs, of course, this should equalized by a high shoe.

Now, in regard to the treatment of hip-joint disease, let me, in the first place, impress upon you that it is a surgical law which no general or orthopedic surgeon should violate, *that when a part is inflamed, that part should be put at rest until it is cured, no matter how long a time may be required to effect this.* Another important rule is, *overcome the spasm of the muscles operating upon the joint*, as this spasm produces *great intra-articular pressure*, and will certainly result in the destruction of the joint if not controlled by traction exerted *against the contracted muscles.* To do this, you must make not only longitudinal traction in the line of the deformity, *but also lateral traction in the axis of the neck to overcome the spasm of the adductors and the abductors.* Another important point is, *when will you begin passive motion? Never.* I care not how long you keep the joint immobilized, *it will not be anchylosed, because of the rest you give it*; but *if anchylosis does occur*, it will be *on account of the duration, severity and extent of the inflammation, and the subsequent cicatricial contraction, and no amount of passive motion will prevent this after this cicatricial contraction has once begun.* Therefore, I say, put all patients with sensitive joints *to bed, and also those having deformity*, because you can overcome the deformity more quickly with them in bed. After the deformity has been reduced, and all tenderness has disappeared, put the patient on a lateral traction fixation splint. *Never allow them to walk upon the splint until cured, for the constant trauma produced by walking will prolong the disease, and more than fifty per cent. of such cases so treated have anchylosis, and hardly a single case will recover without deformity;* hence, *you must use a high shoe on the well leg, and not allow the splint to touch the ground.* These are the principles of treatment, and if faithfully carried out, I think they will enable you to obtain far better results than have hitherto been observed in hip-joint disease. We seldom see anchylosis and our cases are treated as I have suggested. All recovered without angular deformity.

Another important question which will confront you is, when shall you operate upon an abscess? *I answer, just as soon as you are sure pus is present, except when the abscess causes no disturbance, there is no tendency to burrowing, and occasionally also where the abscess is so located, that if opened, the ring of the brace would press upon the wound.* "*An empty house is better than a bad tenant,*" *and I have never regretted opening an abscess.* Having incised an abscess, you can then *introduce your finger*, and ascertain positively the exact condition present. *You may find the head of the bone separated from the shaft, or you may find positive indications for an incision, at any rate, by opening an abscess, you are made master of the situation.*

In connection with the subject of immobilization and anchylosis, I would like to show you this man, who is *said to have had inflammatory rheumatism*, and whose *entire spine* is *anchylosed*; yet, *his spine has been constantly moved and subjected to all kinds of massage*—the very plan which is supposed to prevent anchylosis, but anchylosis has resulted. *Are you going to*

bow down humbly to established precedent, or are you going to accept these facts, and shape your treatment accordingly? Contrast this with the next patient, a man who had an effusion in the left knee joint, *nine months ago*, and whose limb was put up in plaster of Paris, *first for five months*, and subsequently again *for four months*. The splint has been removed today, and you see that there *is no anchylosis* in this knee joint *notwithstanding such prolonged immobilization*. If you consult Dr. Sayre's book on Orthopedic Surgery, you will find a case of hip-joint disease reported, in which a child was kept in a wire cuirass for a few months, and the child not only came out with anchylosis of the opposite hip, but of the joints of the opposite extremity, and of the entire spine, and this was attributed to the immobilization; yet strange to say, the side in which the disease existed, recovered without anchylosis. A mistake in diagnosis was certainly made. *By all means do not employ passive motion*, but *active motion*, after the patient is cured; let the patient loosen up the joint, his feelings will regulate the degree of motion. Passive motion will probably excite a fresh inflammation, which will probably result in anchylosis.

The last patient I shall show you is a physician, forty-one years of age, who had an extremely severe form of talipes equino-valgus. I could not straighten the left foot, you will remember, after the open incision, or by manual force, but with the aid of a powerful club-foot machine, I succeeded in pulling the heel down, and I think the result will be very satisfactory. You will remember that we divided the nerve; it is always better to cut a nerve than leave it upon the stretch, for sensation will invariably return. In this patient, it is already beginning to return.

Without the machine, some form of osteotomy would have been necessary, but as there is a mortality of from three to five per cent. from osteotomy, it should be avoided whenever possible. If you follow the rules already laid down, you will probably be able to avoid it in about ninety per cent. of all your cases. The open incision has its legitimate place in surgery, between subcutaneous tenotomy and osteotomy. This patient was my two hundredth case, and I have never heard of a single death from this open incision method.—P.S. Three months later the patient was discharged with perfect feet.

THE INFLUENZA WAVE IN EGYPT.

The influenza wave which attacked Egypt on the Mediterranean border of the Delta, after gradually spreading southward, has now reached the Soudan, into which it is apparently disappearing. The influence of the disease on the mortuary returns was first apparent in Lower Egypt in the week ending January 14th last, when the death-rate went up from an average of 41.9 for the preceding six years, to 52.8 per 1,000 in nineteen of the principal towns. The high rate steadily increased up to February 4th, when the rate was given as 71.9, against the average of 42.8. The following week it began to diminish, but it was not until the week ending March 24th that the normal rate of mortality was again reached. During these eleven weeks the deaths of 358 natives and 24 Europeans were reported as directly due to influenza. In the eleven towns of Upper Egypt, from which returns are furnished, the most southern being Esneh, the death-rate did not show any increase till the week ending February 18th, when it rose to 46.9, the average being 37.1. The highest rate reached was during the week ending March 10th, when 55.6 per 1,000 was recorded; but at the date of the last return, that is, March 31st, it was above the average, being 49.8. In these eleven towns the number of deaths ascribed directly to influenza during the period was 45. The military report from Assouan show that between February 14th and 27th 44 cases of influenza were treated among the soldiers, while at Wady Halfa the number was 132, with one death. From the latter date to March 19th, 3 fatal cases occured at Assouan, and 173 at Wady Halfa; and at the latter station there were 5 deaths. There were only 4 cases left under treatment, so the epidemic may be looked on as almost extinguished as far as the military are concerned. In the week ending April 7th the mortality in Upper Egypt fell to 43.9 per 1,000, although there were 5 deaths said to be due to influenza. At Wady Halfa, on April 9th, there was a clean bill of health from the military hospital as far as the epidemic was concerned, but since the date of the last report there had been 3 deaths.—*Brit. Med. Jour.*

Communications.

REPORT OF A FEW LAPAROTOMIES DONE IN THE ALLEGHENY GENERAL HOSPITAL. BY R. STANSBURY SUTTON, M. D., GYNÆCOLOGIST TO THE HOSPITAL.

By MARK A. RODGERS, M. D.

Before submitting the reports of these cases, I shall attempt to describe the operator's technique.

The method employed by Dr. Sutton for the disinfection of the skin, is that which has been described at various times by Mc Lean and Welsh of the Johns Hopkins University, with slight modifications. Without pointing out these modifications I shall describe the method as used by Dr. Sutton:

1. The forearms and hands of the operator and his assistants are vigorously scrubbed with a coarse sterilized nail-brush, warm water and soap, for several minutes; nails pared and cleaned.

2. The hands are then placed in a strong solution of potassium permanganate for one or two minutes, after which the excess of this solution is washed off with distilled water.

3. They are then placed in a freshly prepared solution of hyposulphurous acid until decolorization is effected.

4. They are then immersed in distilled water.

The hyposulphurous acid solution is prepared by mixing just before using, concentrated solutions of oxalic acid and hyposulphite of soda; the result being the formation of sodium oxalate and the liberation of the acid, which has great decolorizing power, and quickly removes the stain of the permanganate.

The remarkable point to be observed in this process of disinfection is the absence of corrosive sublimate. The results as will appear from the following report apparently justify its omission.

As an additional precaution, the surgeon, his assistant, the nurses and all who are in any way engaged in the operation, receive prior to entering the operating room, a bath, after which they are dressed in sterilized wash clothing.

The abdomen having been prepared with all attention to the details of modern asepsis, the patient is placed after anæsthetization on an Edebold table. The abdomen is opened by three incisions, as follows: The first exposes the linia alba; the second the peritoneum, and the third after the arrest of hæmorrhage, opens the abdominal cavity. The time occupied by this part of the operation is usually from ten to fifteen seconds. The incisions are made by a long continuous sweep of the knife, and the length of the incision has therefore not much effect upon the time required. The cavity opened, the operation proceeds, of course, as required by the existing condition. The general points being, that flushing, sponging and drainage are to as great an extent as possible evaded; that chemicals are never used within the peritoneal sack under any circumstances. Hæmorrhage is controlled by the usual methods—torsion, suture, ligature, sponge packing, hot douche or in extreme cases, styptics. Occasionally despite these measures persistent oozing has to be dealt with, and under such circumstances drainage is reluctantly resorted to, combined with extra-abdominal compression after closure of the wound.

Silk, which is completely soluble in a concentrated solution of potassium hydroxide, is the material used for ligature. The abdominal wound is also closed with silk, with if necessary superficial sutures of silk or cat-gut.

The dressings are extremely simple, consisting of eight layers of sterilized gauze, which after removal from a solution of 1:500 bichloride of mercury, have been rung out in three changes of distilled water. On this is placed a layer of aseptic cotton and the whole held in place by a many-tailed binder. This dressing is not molested under ordinary circumstances until the seventh day, at which time every alternate stitch is removed; on the eighth day the remaining sutures are withdrawn. At this time union has usually taken place throughout by first intention. A single layer of gauze is now applied and held in place by adhesive strips, which also serve to support the wound. This is only changed for the remaining few days as cleanliness or the patient's comfort dictate. On the fourteenth day the patient is usually allowed to sit up, and a few days later leaves the hospital.

The operating room is a model. Through the liberality of Mr. D. E. Park, a member of the board of directors of the hospital, an operating room has just been completed for the Gynæcological department, which is probably, both from an esthetic and practical point of view second to none in this country. It is situated on the third floor of the building and is accessible from all floors by a hydraulic elevator, large enough to carry comfortably a bed or operating table and attendents. The room has a southern and eastern exposure, the high elevation besides giving a good quality of air and making ventilation consequently perfect, gives excellent opportunities for lighting, which in the Smoky City is a matter of no inconsiderable moment. But this element has been bountifully supplied by the designer, Dr. Sutton. The entire front is of glass; there is also a large glass plate in the front eastern exposure. The floor is of white Georgia marble and the walls support a six-foot wainscot of the same material. Above the marble the walls are finished in lead of a delicate blue hue, which is tastefully offset by the ceiling in white. On the eastern aspect from before backward are respectively the glass, a large sterilizing gas range embedded in enameled porcelain bricks, and a six-foot horizontal slab of marble, in which are set three basins; the latter is surmounted by a large highly polished copper reservoir for hot water. The plumbing is in brass, making the beautiful contrast which is so familiar.

Adjoining this and connected with it is a room of smaller dimensions, finished by Mr. S. P. Harbison, also a member of the hospital board, in exactly the same manner, with the exception that the wainscoting is here four instead of six feet. This admirable little apartment, is used as an anæsthetizing, dressing and examining room.

The facilities for operating are exquisite. The material of the floor and walls permits the practice of the most thorough measures known for disinfection and the establishment of perfect asepsis.

Since the election of Dr. Sutton as Gynæcologist to the Allegheny General Hospital I have had the pleasure of assisting him at the following operations at that institution:

Case No. 1.—Ovariotomy. Diagnosis: Multilocular cyst of right ovary. Admitted to Allegheny General Hospital, March 23, 1892.

History.—Patient Mrs. G., aged 55 years, had given birth to four children, the youngest at that date being something over thirty years of age. Family history negative.

Personal history.—No history of dystocia or menstrual disturbance. About one year prior to admission to hospital, patient's attention was attracted to tumor-like mass in lower right abdomen, which rapidly grew in size until the (then) present time, when she applied for admission to the hospital for purpose of having operation done.

Operation March 26, at 9 A. M. Abdomen was laid open from umbilicus and cyst delivered after the method of Peon. Proved to be cyst of right ovary, multilocular, weighing 16 pounds. Pedicle was rather broad and was ligated with silk. Left ovary was found to be in a state of cystic degeneration and was also removed. Omentum was adherent to abdominal parietes, cyst and intestines had bled freely; hæmorrhage controlled by silk ligatures. Abdomen flushed and closed. Time of operation, thirty minutes.

Patient rallied well; temperature same evening 99 4-5° pulse 104. Rested quietly and passed gas during the night. On the third day uncontrollable emesis set in which became fecal on the seventh day. At the appearance of the latter symptom, no movement of the bowels having occurred, the patient was placed on the operating table and an incision made in the left inguinal region, and a protruding portion of the ileum stitched to the abdominal wall. An incision was then made into the gut, which was followed by a very large watery evacuation, with much flatus. At this time stitches were removed from primary wound, union having taken place throughout by first intention. The opening of the ileum was followed by a temporary improvement in the patient's condition. The emesis ceased and she partook of considerable nourishment and stimulant. Four days after, however, the emesis returned; patient became exhausted, passed into a typhoid state and died on the fourteenth day.

At the post-mortem the ileum, colon and rectum were found to be in a condition of gangrene. There was no effusion or other evidence of inflammation. The

theory is advanced by Dr. Sutton that gangrene was due to embolism of mesenteric arteries. The emboli being derived from a large varix just below Poupart's ligament and connected with the femoral vein.

Case II. Double salpingo-oöphorectomy. Diagnosis: Gonorrhœal salpingitis. Admitted to Allegheny General Hospital, March 5, 1892. Awaiting operation on Dr. Sutton's arrival. Miss O., aged 19. Domestic; family history negative. Personal history: First menstruated at thirteen. Had an attack of gonorrhœa four weeks previous to admission to the hospital. Examination revealed tenderness over both tubes with some enlargement.

Operation March 26 at 10 A. M. Incision about two inches in length. Tubes and ovaries on both sides found enlarged and congested. Slight adhesions. Both removed. No flushing or sponging of cavity. Wound closed with silk-worm-gut. Time of operation, twenty minutes.

Neither temperature nor pulse ever went above 100. Three stitch-abscesses formed during convalescence, but yielded readily to treatment. Patient left her bed on twenty-first day in good condition.

Case III.—Herniotomy. Diagnosis: Ventral hernia. Admitted to Allegheny General Hospital, March 12, 1892. Mary D., aged 27. Married. Domestic. Family history negative.

Personal history:—According to her own statement, had right ovary and tube removed, with nine inches of intestine, in Philadelphia, in the spring of '89, and in '91 at the same place, had been operated on for hernia, result of first operation. Latter operation was unsuccessful.

Examination revealed protrusions of intestine at various points on the abdomen. The patient extremely fat and flabby. Fasciæ atrophied and retracted.

March 26, 11 A. M. Abdomen including peritoneum laid open. Edges of retracted fascia secured with buried silk-worm-gut sutures. Superficial tissue closed with continuous silk-worm-gut suture. Wound healed by first intention, patient discharged on 21st day. Buried sutures afterward suppurated, yielded to bichloride irrigation, and the wound is now in good condition. The hernia at the point operated upon, is entirely reduced—a large protrusion still exists, however, above the point operated upon, which it is the intention of the operator to attempt to close at a subsequent operation.

Case IV.—Double salpingo-oöphorectomy. Diagnosis: Double gonorrhœal pyosalpinx. Admitted to Allegheny General Hospital, March 28, 1892. Operated March 26th, at 10 A. M. Incision about two inches in length. Tubes and ovaries on both sides found enlarged and congested. Slight adhesions. Both removed. No flushing or sponging of cavity. Wound closed with silk-worm gut. Time of operation, twenty minutes.

Operation March 30, 1892, at 2 P. M. After the abdomen was opened the greatest difficulty was experienced in loosening adhesions sufficiently to expose the uterus. This was finally accomplished. The adhesions were excessively dense and the hæmorrhage following their separation profuse. The right tube and ovary were removed first; they were embedded in a solid mass of adhesions which were so firm that they could scarcely be torn apart. After the greatest difficulty they were torn off. A similar condition was found to exist on the left side, but the adhesions if anything were more dense. The ovary was removed and what appeared to be the remains of the tube. Hæmorrhage was very severe but was finally controlled. A drainage tube was inserted and the abdomen flushed and closed. Time of operation forty-five minutes. At midnight temperature was 99°, pulse 104. The drain tube was exhausted at 8 P. M., and ℥iss bloody water removed. Temperature next morning was normal, pulse 108. Tube being empty was removed at 3 P. M. Pulse same evening 108, temperature 99½°. About this time the patient became maniacally hysterical. Tossed and fumed, sang ridiculous jargon, etc. Her abdomen became distended, vomiting set in, and after two days of raving which finally became true delirium she became exhausted and died. Temperature at highest point was 100½ °F.

The post-mortem revealed a violent peritonitis with small quantity of pus in the pelvis. Died April 2, 4.30 P. M.

Case V. Double oöphorectomy and anterior fixation of uterus. Diagnosis: Procidentia uteri, prolapsed ovaries with chronic ovaritis and salpingitis. Mrs. D., aged 26, married. Admitted to the hospital sometime during February and awaiting operation at time the operator

came on duty (March 26,'92.) Family history, negative. Personal history.—Gave birth to one child which was "still born" probably from the use of instruments. Her pelvis was found to be badly deformed (kypho-scoliosis). At the delivery of this child the cervix and perineum were both severely lacerated. The latter into the rectum. She had as a result procidentia, and coccyodynia with frightful erosion of uterus. An operation was done by a member of the hospital staff who succeeded in closing the perineum. This operation did not affect the procidentia, however, which returned, the uterus again becoming eroded. Treatment with pessaries was tried but only increased the discomfort.

On examination March 36, the ovaries were found prolapsed and tender and a laparotomy was consequently determined upon.

Operation March 31. Ovaries and tubes found enlarged and congested and removed. Uterus fixed to lower angle of abdominal wound by two buried silk sutures. Wound closed with silk. Temperature rose to 101½° on fourth day; also an erratic rise on fifteenth day to 103½°. Pulse, however, never went above 100. Some stitch abscesses formed and buried sutures came to surface and were removed. Left the hospital May 26 completely cured and in perfect health.

Case VI. Double oöphorectomy. Diagnosis: Chronic salpingitis, ovaritis and pelvic peritonitis. Mrs. P.; aged 29, married. Family history: One aunt died of pelvic cancer. Operation April 26. Tubes and ovaries on both sides enlarged. Looked somewhat suspicious of malignancy. Time of operation 55 minutes. Recovered, convalescence uninterrupted.

Case VII. Ovariotomy. Diagnosis: Multilocular cyst of right ovary. Left ovary diseased. Admitted to Allegheny General Hospital, May 3rd, 1892. Miss M., aged 30. Family history. Patient, a sister of Mrs. P.; operation May 6. Small cyst of right ovary, left ovary cystic. Time of operation 20 minutes Recovered, convalescence uneventful.

Case VIII. Oöphorectomy. Diagnosis: Multilocular cyst. Admitted to hospital May 5. Mrs. W., age 45. No history. Sixteen pound multilocular cyst, pedicle five inches broad and tied in sections. Recovered, convalescence uneventful.

Case IX. Double oöphorectomy. Diagnosis: Chronic ovaritis. Admitted to hospital May 6. Mrs. C. aged 26. No children. Operation May 7. Ovaries as large as a hen's egg. Both removed. Sat up on twelfth day, left hospital on 19th day.

Case X. Double salpingo-oöphorectomy. Diagnosis: Chronic salpingitis and ovaritis. Admitted to hospital May 24, 1892. Miss H, aged 29. Operation for lacerated perineum and cervix performed in spring of 1890. No relief. Operation May 28, both ovaries cystic and large and both tubes inflamed. Highest temperature 100½°. Pulse 90. Recovered. Sat up on 14th day, uneventful convalescence.

Other reports will follow from time to time.

ARISTOL AND EUROPHEN.

By DR. A. EICHLER,

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When antiseptic methods were first introduced to the notice of the medical profession, there was but little choice among the agents useful to secure complete antisepsis. Carbolic acid and iodoform were about the only ones in extensive use; objections regarding their toxic faculties and still more regarding their odor were barely considered, although often mentioned. Since progressive chemists, however, have furnished us with almost countless other antiseptic agents, and since carbolic acid has been largely superseded by the bichloride of mercury, those objections, which, as already stated, were hardly noticed in former days, have continually grown in magnitude and are now viewed with such seriousness, that the antiseptic which now wants to achieve distinction and success, must satisfy us not only regarding its antiseptic virtue, but also regarding odor and innocuousness.

As iodoform may be called principally an iodine compound, and as its germicidal action practically rests upon the iodine, it was but natural that chemists should, above all, try to form other compounds of iodine, which should possess the advantages of iodoform without its disagreeable features. They succeeded in giving us quite a number of such compounds, which,

however, never rose to the popularity of their congener. The first compound succeeding in a larger measure than all others previously offered was aristol, which was first presented about two years ago. It is composed of iodine and thymol; chemically speaking, it is a di-thymol-di-iodide, obtained in the form of a brownish red precipitate by treatment a solution of iodine and iodide of potassium with an aqueous solution of thymol and caustic soda. Aristol is insoluble in water or glycerine; in alcohol it is almost insoluble, while in ether or chloroform it dissolves very readily. If alcohol is added to an ethereal solution, aristol will be precipitated. It is also very soluble in fatty oils. Olive or almond oil are the oils most commonly used for this purpose. Oily solutions should never be made by heat, as this would produce chemical changes. In its dry state aristol is of a brick red color, which it also imparts to solutions. It decomposes on exposure to heat or light; this decomposition may be readily recognized by the change in color. It should always be kept in a cool place in colored bottles, amber color to be preferred. Its odor is but slight and not at all disagreeable. It adheres readily to the skin, thus adapting it for application in powder form. It is not toxic, and is in this respect decidedly superior to iodoform. If it was toxic, iodine could be detected in the urine of patients to whom it was applied; repeated examinations, however, by means of the starch test, have given negative results. In cases, where iodoform, having produced constitutional disturbances, was replaced by aristol, no unpleasant effects were noticed. Aristol can thus be safely applied to large surfaces.

In practice aristol has been found very useful in diseases of the skin, in which it proves quite effective without producing stains; it is prescribed in much the same manner as iodoform. It may be applied in its pure state as a powder or its strength can be reduced by powdered starch; it can also be made into a paste with starch and it is thus shown, that aristol contains no free iodine and is a stable compound. As it is soluble in ether, it may be added to collodion in varying strength and then applied with a camels-hair brush. The usual strength of such applications is 1 part of aristol in 10 of the vehicle. For ointments, lanoline or petrolatum can be used as a base to contain from 5 to 20 per cent. of aristol. Suppositories, for rectal, vaginal or urethral disease contain usually from 1 to 5 grains of the active ingredient; heat must be avoided in their preparation. It should also be mentioned, that substances possessing strong chemical affinity for iodine and thus decomposing the compound, should not be combined with aristol.

Besides its successful employment in affections of the skin, aristol has also been much used in chronic ulcers, syphilitic lesions, in short in all those cases, where iodoform has been formerly prescribed internally it has been employed very little. Iodoform, however, has also never been found efficacious when internally given.

When aristol was introduced it was also reported that similar compounds might be obtained by replacing the thymol with resorcin or salicylic acid; neither of these combinations have ever been presented in commerce. Instead of them another rival has arisen, in which a cresolate is substituted for the thymol, its commercial name being europhen; this is a typical example of what modern chemistry can accomplish in the nature of antiseptic compounds. It is formed by the action of iodine on iso-butylorthocresol, in presence of alkalies. It exists as a fine amorphous, yellow powder, insoluble in water, but very readily so in alcohol, ether, chloroform or fatty oils, the latter taking up almost 25 per cent. Its percentage of iodine in combination is almost 28 per cent. It is more adherent to the skin than iodoform; it is very bulky, so that a small amount by weight will cover quite a large surface, a fact which constitutes quite a saving in expense. It is supposed to be 5 times lighter than iodoform. Its odor is agreeable, actually quite aromatic. Its action is similar to iodoform, depending on the gradual liberation of minimal quantities of iodine. While europhen is a definite chemical compound in its dry state, it begins in presence of moisture at a degree of heat equal to body heat, to liberate iodine, on which its antiseptic action depends; as this process proceeds gradually and as the iodine combines with the albuminoid constitutents of the body, thus rendering absorption very slow, it is almost innocuous. When alkalies are present, the liberation of free iodine is accelerated. Its solubility in oil allows its application in hypodermic medication.

As europhen is thus like iodoform in its physical properties it is only to be expected that their therapeutic indications should be similar also. Owing to its comparative recent introduction, reports regarding its activity are rather few, those published so far, however, show that the remedy may be confidently prescribed.

One of its chief applications, if it is supposed to supersede iodoform must necessarily be to venereal diseases. In contradistinction to other similar agents europhen has proved quite satisfactory. In soft chancre it promotes healing rapidly; as it is especially in this affection that patients object to the odor of iodoform it is quite probable that europhen will be universally adopted as the remedy. An ointment containing europhen 15 grs. to vaseline or lanoline ½ oz will be an application of suitable strength. It may also be used as an internal remedy in constitutional syphilis, instead of other iodine preparations and it can also be injected hypodermically for this purpose. One should then begin with a very small dose, ¼ of a grain and increase slowly to 1 or 2 grains; when the dose is increased too rapidly iodism in its usual form may manifest itself. For the various syphilitic eruptions it can be applied in the form of an ointment.

In cases of non-syphilitic affections of the skin, especially the parasitic varieties, it has not proved itself a very active agent. Erysipelas, in its milder forms, is often very much benefited by applications of an europhen ointment of moderate strength. In burns and scalds europhen proves itself an excellent topical remedy. It relieves the pain almost instantaneously, stimulates granulations and leads to the formation of an elastic and firm cicatrix.

It should be applied in ointment form, of about 3 to 5 per cent. strength, with either a vaseline or lanoline base. Another, also very effectual mode of applying it is to first cover the surface of the burn with europhen and then with a 2 per cent. solution in oil; the part affected should be then wrapped in sterilized gauze, which is to be completely saturated with the europhen oil; a piece of oiled silk should be laid over this and fixed permanently, with either a roller-bandage, adhesive strips or a water glass dressing, according to the extent and location of the burn. This makes an ideal dressing, which will not require to be changed often and under which exuberant granulations will be promoted. At the same time, as the oily dressing will not adhere to the wound, there is no danger of tearing off the granulations whenever the wound is dressed, and thus delay healing. Quite severe burns heal by this method in a very short time.

Europhen also is of great service in chronic diseases of the nasal air passages, be they caused by hypertrophy or atrophy. It can be readily applied by a powder atomizer, either alone or in combination with inert dry powders.

In urethral surgery it can be used much like iodoform; gelatine bougies may be impregnated with it.

Europhen is especially indicated in such cases, where a stimulant effect and granulations are desired; in the treatment of chronic ulcers, especially of the indolent order, it will probably be still more used than iodoform has been. Fistulous tracts can, when an operation is not desirable be injected with an ethereal or oily solution thereof and thus be healed.

Considering all, we now possess in aristol and especially in europhen two antiseptic agents, which will answer to all demands heretofore of iodoform. They are somewhat less stable than iodoform, as far as the influence of light is concerned; but this is no serious objection: in antiseptic value they are fully equal to iodoform, equally non-irritating, more agreeable and less toxic, on account of slower absorption. They are useful in all affections where a remedy is required to prevent decomposition and destroy the bacteria of disease.

UMBILICAL VEGETATIONS.

In the treatment of umbilical vegetations, Sevestre (*Rev. Génér. de Clin. et de Therap.*, April 20, 1892) recommends: 1. Every morning the vegetations are covered with tannin finely powdered, this being introduced into all the furrows of the growth by means of a stilette. 2. Apply a padding and a small bandage. 3. On the following days, the crust is removed, a warm bath given, and the application renewed. This treatment is to be continued until a cure is obtained, which generally takes place in the course of 2 weeks at most.

A CASE OF AN OLD RIGHT INGUINAL HERNIA, IRREDUCIBLE; OPERATION FOR SAME.

By JNO. B. CRANDALL, M. D.,
STERLING, ILL.

E. J. H., American, age 74 years; married; occupation, proprietor of a livery stable. Have known Mr. H., for the last twenty years; he has always enjoyed good health with the exception of an epithelium cancer of the right cheek, which was removed some eight years since. Some four years later he had a deep abscess under pectoral muscles, which was treated by deep incision and syringed out with a solution of permanganate of potash.

The patient had been troubled with an old inguinal hernia for years and wore a Hubbard truss. Some four or five years ago I gave him chloroform, and with the assistance of Dr. Keifer we had no trouble in reducing the tumor which was then in the scrotum, by taxis. Has had more or less stomach trouble for the last few years, which has been amenable to treatment.

May 15, 1892, was called just after dinner at 1 o'clock. I found a loop of the ileum in the inguinal canal. He said that he felt something give way in the morning as he was making some exertion to drive some fowls from his dooryard. He was extremely nervous. Dr. Keifer assisted me in attempting to reduce the hernia as before, by taxis. We put him fully under the influence of chloroform and tried all positions and conservative methods with no successful results. We then tried the local application of ether over the seat of the tumor for an hour or more with no success. All of our conservative methods failed to relieve him. After explaining the situation to him and his wife, with their consent we called in extra assistants at 4 P. M., and after rendering all of the instruments and dressings microbe proof, we put him again under the influence of chloroform; cut down upon and pulled out the intestine; removed some old omental adhesions; applied some aseptic wash to the strangulated parts until they appeared to be in a natural state, we then enlarged the abdominal opening and replaced the intestine in the natural bed within the cavity, and closed the wound with a double set of juniper cat-gut sutures; cut short the deep sutures and left them buried. We had no trouble from hæmorrhage. The operation lasted some three-quarters of an hour. We dusted iodoform over the wound and applied iodoform gauze and the ordinary retaining bandage. We then placed the patient in a clean bed, and in a short time he came out from under the influence of the anæsthetic, but had more or less nausea. The operation was performed at four o'clock P. M., three hours after first seeing the case. At ten P. M., we gave him a small hypodermic injection of morphine, which quieted him down for the night. For the next three days we kept him in a passive state, feeding him light broths and to quench thirst, which was not excessive, we gave him Apollinaris water. He felt no pain at the seat of operation but was troubled with nausea, and would eject most of the articles taken into the stomach, and, at times mostly clear bile. This we attributed to the fact that just before the operation he took unknown to us a dose of cathartic pills.

Our next move was to get a natural movement of the bowels. We gave him a solution of epsom salts with the different mineral waters, which were retained for some time, but did not act upon the bowels. We then gave him injections of different mixtures and succeeded in getting a passable movement from the bowels after giving a copious injection of ox gall. The pulse did not run over ninety per minute, and the temperature was normal. He could retain nourishment longer, and the wound gave him no trouble. Ten days after the operation we looked for a speedy recovery, as the incision had healed by first intention. But at the end of the two weeks the stomach symptoms reappeared; he complained of a burning sensation upon taking any fluid. Up to this time there had been no apparent tympanites; all of the pain was located in the stomach. He could not retain food. We tried enemas of beef tea, in order to nourish him by the rectum.

During the last week there was more or less gaseous distension of the stomach and the upper part of small intestines. We were unable to get any further movements of the bowels or keep any amount of nourishment in his stomach for any length of time. He had no fæcal vomit at any time during his sickness. He lingered along in the same way. During the last week we

gave him a hypodermic injection of morphine ⅛ gr. at night, which gave him tolerable rest. He died upon the twenty-first day following the operation.

No post-mortem was allowed.

As to the cause for the persistent stomach trouble, we attributed it to the action of the corroding influence of the bile products open the mucous coating of the stomach, developing latent cancerous lesion; or else to an invagination of the lower part of ileum; or from some bands of plastic material encircling the seat of original stricture. Knowing the patient to be of a cancerous diathesis, we have reason to attribute the stomach trouble to that cause.

OLEUM TEREBINTHINÆ AS A REMEDY FOR CROUP, WITH A REPORT OF FIFTEEN CASES; WITH DISCUSSION.*

By E. W. KELLOGG, M. D.,

MILWAUKEE, WIS.

In consideration of this subject, I wish at the outset to disclaim any originality in suggestion or application of the remedy. I have simply followed the suggestion of others and recorded the results.

Turpentine is an old and well known remedy, and yet, little if any used in croup until within the past two years. It was first suggested by Prof. George in 1886. As it has but a limited internal use, I may perhaps be pardoned for giving some of its physiological actions, as detailed in therapeutical works. It is a stimulant diuretic, antiseptic and expectorant. It arrests fermentation and putrefaction, and is very destructive to all forms of bacteria.

It diffuses into the circulation with great rapidity and is quickly recognized in the breath, sweat and urine.

It is secreted by the skin, kidneys, lungs, bronchial tubes and probably in some measure by the mucous membrane of the trachea and larynx.

The bronchial secretions are considerably increased. Its effect in croup is doubtless due to its local action upon the respiratory tract during its elimination from the system.

*Read before the Milwaukee Medical Society, May 10, 1892.

I am well aware that the diagnosis of any or all of these cases may be called in question and for that reason have omitted two cases in which diagnosis was doubtful. I do not care to be classed among those who see diphtheria or diphtheritic croup in every case in which there is a more or less extensive deposit upon the tonsils, pharynx, nasal surfaces, or larynx; but I do believe in a specific contagious disease called diphtheria, and believe that the majority of cases of so called membraneous croup are in reality diphtheria and should be treated and guarded against as such.

Whatever may flourish in other parts of the city, however much follicular pharyngitis may pass for diphtheria in cleanly houses and among people who observe the most ordinary rules of hygiene, the disease with which we have to deal among the lower classes of foreign population is more than pharyngitis and malignant sore throat. It is a disease that kills by the score as the grim health-office reports will show.

It thrives in uncleanly houses as vermin do and is more common among the lower classes of European immigrants packed in filthy tenements than it is generally supposed to be.

Among these people there are many cases to which no physician is ever called, and these are the invisible causes of many more severe cases of pharyngeal and laryngeal diphtheria.

The ætiology and pathology of croup is shrouded in obscurity both in theory and practice. Until 1858 when diphtheria was prevalent in England, the word croup was confined to an acute disease of the larynx believed to be non-contagious, but much has been done in the past two years towards proving its true cause and rational treatment. Recent investigations tend to show that the cases formerly described as true or membraneous croup were in reality laryngeal diphtheria or in other words, the difference is one of locality and not of exciting cause.

In the majority of these cases membrane was visible in the throat for several days before there were any laryngeal symptoms.

Case I.—The first case was a Polish child two years of age. Had diphtheria for four days when croup developed and she grew rapidly worse.

About forty-eight hours after the laryn-

geal symptoms began Dr. Walbridge was called in consultation. The child was cyanotic. The sternum was strongly retracted with each inspiration.

We informed the father that the only hope for the child was in tracheotomy, and that this would be but a possibility.

He refused to have tracheotomy performed and Dr. Walbridge proposed to try ol. terebinthinæ as an experiment, relating a successful case in which he had previously used it with Dr. Schiller. The child was put on drachm doses every four hours and on the following morning was visibly improved though the laryngeal breathing and crowing cough were still marked. On the following day she was still better and in three days the symptoms of croup had entirely disappeared.

The child remained weak and anæmic for a long time but finally made a complete recovery.

CASE II.—German boy four years of age. One of four cases of diphtheria in one room. He developed croup on the fourth or fifth day. His pharynx and nose were filled with false membrane. He with the others had been taking corrosive sublimate and iron in alternate doses. This was continued and in addition ol. terebinthinæ in teaspoonful doses every 2 hours. The cough was easier after a few doses. The retraction of the sternum disappeared. Inspiration became normal and he made a complete recovery.

CASE III.—A German girl ten months of age. When first seen she had no visible false membrane. She was in the third stage of croup; cyanotic, greatly depressed. She was given brandy and ol. terebinth. in alternate hourly doses. She died in twelve hours.

CASE IV.—A Norwegian boy five years old. Had an attack of diphtheria. Membrane was confined to tonsils and pharynx with a small patch at one corner of the mouth. Developed croup on the second day. Characteristic cough and inspiration. Was gixen oleum terebinth. in drachm doses every 2 hours for four days and nights.

The effects of the drug in this case were especially prompt and efficient. Although the laryngeal symptoms were continuous and severe the effects of each dose could be seen in slower, easier respiration, and a stronger pulse. He made a complete covery.

CASE V.—A Polish child four years of age. Had been under the care of another physician for a week when croup developed. A sister died in the same condition the day before. I saw him. When first seen his respiration was very difficult the sternum falling two inches with each inspiration. He was given drachm doses of oleum terebinthinæ every hour for six hours, then drachm doses every two hours. The following day he complained of some stranguary and the turpentine was given every three hours instead of every two. The stranguary disappeared during the day, and on the following day he was so much improved that the family discharged the doctor. He was on the street three weeks later.

CASES VI AND VII.—Polish girls. Two of five cases of diphtheria in one room. The treatment was not carried out. Five successive physicians were called in four days and four of the five cases died including the two with diphtheritic croup.

CASE VIII.—German girl four years of age. In the third stage of croup. No membrane was visible. Had only been sick twelve hours. Teaspoonful doses were given every two hours alternating with brandy but there was no agreeable effect and she died within four hours, from suffocation. There was no visible sign of diphtheritic membrane in this case.

CASE IX.—Three days later was called to see a brother three years of age and found his throat filled with membrane. Four days later it reached the larynx. He was put upon the same treatment and took eight ounces of turpentine during the next few days. Slowly but steadily all symptoms of croup disappeared and he made a complete recovery.

CASE X.—German boy six years of age. Diphtheria followed by croup. He was given drachm doses every two hours for nearly forty-eight hours, but there was no effect. He grew steadily worse and died from suffocation.

CASE XI.—A Polish girl two years of age. Four children in the house had diphtheria and her throat was covered with false membrane. When first seen she was breathing with the greatest difficulty, and with each inspiration the sternum was retracted enough to make a hollow the size of a man's fist. The parents positively fused to have further medical attendance as she was expected to die, but they

promised to keep up drachm doses of turpentine every two hours. For four days and nights they gave her a teaspoonful every two hours. She made a slow recovery.

CASE XII.—A Polish boy four years old. One sister with diphtheria followed by croup had died within a week. Every inspiration could be heard in any part of the house or out on the walk. His face was cyanotic and his extremities cold. He was given drachm doses every hour during the day and every two hours at night. He grew no worse but the improvement was but slight for two days when he began to improve and made a rapid recovery.

CASE XIII.—Was an Irish girl four years of age. Treatment began about twelve hours after laryngeal symptoms developed and was steadily kept up for twenty-four hours but with no benefit. She died from exhaustion.

CASE XIV.—German boy two years old. Diphtheria for six days followed by croup. Drachm doses were begun early and given regularly but there was no visible effect. He died in about forty hours.

CASE XV.—Polish child one year old. Diphtheria followed by croup. Strong retraction of the sternum, crowing cough, and difficult respiration. He was given half drachm doses every two hours and improved from the beginning. The laryngeal symptoms disappeared in three days and he recovered.

To recapitulate. Of the fifteen cases, eight recovered and seven died. In all of the eight recoveries croup was the sequel of diphtheria of the pharynx.

Of the seven fatal cases two were not given the treatment, in two others there was no visible diphtheritic membrane, in the three remaining fatal cases, croup was the sequel of diphtheria of the pharynx

In but one case was there any disagreeable effect from the remedy, and that was a temporary stranguary when 15 drachms were given in 24 hours to a boy four years of age.

In all cases it was given in milk.

In no case was it rejected after it was once past the epiglottis.

It must be remembered that they were cases of a disease of which ninety per cent. die.

DISCUSSION.

DR. FRENCH: I am very glad that a remedy has been found that will hit what is termed diphtheritic croup, because I have generally bid such cases good-bye as soon as I have heard that crowing cough. I would like to ask in respect to the use of this turpentine, have you given a whole teaspoonful to a child a year old?

DR. KELLOGG: Yes, sir.

DR. FRENCH: Did it have any effect on the bowels?

DR. KELLOGG: No, sir.

DR. FRENCH: It is hard work to give six drops to an adult and have them keep it down. I would like to ask another thing: What effect has it upon the other membranes outside of the larynx?

DR. KELLOGG: I could not see any effect.

DR. FRENCH: Hence it would seem to me that it is somewhat peculiar in its action. It would seem that if it had an action in stopping the formation of a membrane of the larynx or stopping the swelling of the larynx, at least that it should produce the self-same effect on the other membranes; but Dr. Kellogg, do you think that all cases of croup that come under your hands are diphtheritic, don't you believe that there is such a thing as a true membraneous croup from a catarrhal difficulty?

DR. KELLOGG: There may be, but I believe the majority of them are diphtheritic.

DR. WALBRIDGE: I only want to ask one question. I don't know whether I understood the doctor properly in reference to two of his cases that are included in those fifteen. As I understood him in the recapitulation, in two cases the treatment was not carried out.

DR. KELLOGG: Yes, sir.

DR. WALBRIDGE: Then it seems to me that a report of thirteen cases would be much more appropriate and much more accurate, and that would make the statistics very much better; and in fact I do not think those two cases belong with the cases treated by the method suggested.

DR. KELLOGG: The children only took two doses. Dr. Walbridge saw that first case with me. I would like his substantiation of the child's condition.

DR. WALBRIDGE: Certainly if there ever was a case that looked as though an opening must be made somewhere, either through this membrane or below it to give the child a chance to breathe that was one. The time was very short when that must be done. The retraction of the sternum was very marked and the expiration was

as difficult as inspiration, and as the doctor remarked in relating the case, it seemed as though nothing except intubation or tracheotomy would be of any avail; but having seen a case with Dr. Schiller in which he suggested that we try the turpentine before adopting surgical means, I concluded that that was the last hope, as any surgical operation was not admitted in this case.

DR. HAYES: I feel very glad to hear that some remedy is found that will help those cases. Some years ago I had some experience in this line; I never saw a case of diphtheritic croup that recovered; I have performed ten cases of tracheotomy and every one of them has died; I have used intubation and corrosive sublimate and never saw a case recover; neither have I heard of any case in the county in which I had practiced and where diphtheritic sore throat was prevalent. I never heard of a case that recovered with an operation in my own or any one's practice. So I am glad to hear that a remedy has been found that will offer some hope of recovery in those cases. Certainly it is a desperate condition, and my experience has been very discouraging.

DR. SHIMONEK: I would like to ask the doctor to state what effect turpentine had on the membrane itself?

DR. KELLOGG: It came off in a dissolved condition.

DR. SHIMONEK: I have had quite a little experience with tracheotomy and with intubation, but I am sorry to say the patients are all dead. I have had six intubations since I have been in the city and every one of the patients died; I have had seven or eight tracheotomies, but every one of the patients is dead; I have had quite a number where I used turpentine and every one died but one, and that one died from complication. The child expectorated the membrane whole, forming a complete cast of the trachea; the membrane was not reproduced, but there was an immense expectoration of purulent and very offensive matter; the child was thirteen years of age and died. I have used bi-chloride until the gums have become sore and in some cases bloody diarrhœa ensued; with no effect on the membrane.

DR. WALBRIDGE: Please tell us the dose and frequency of it that you employed.

DR. SHIMONEK: One teaspoonful not oftener than every four hours.

DR. WALBRIDGE: I believe the secret is to give enough turpentine.

DR. BURGESS: Would you give the common turpentine of Merck's?

DR. WALBRIDGE: Merck's is the best.

DR. WURDEMANN: If my question is in order, I would like some explanation of the term croup. To what are we to apply it; is it a symptom or a disease? It seems to me I have seen some cases of simple laryngitis in children in which there are unmistakable croupy symptoms, that is to say stridulous breathing. Can we not have croup in simple laryngitis?

DR. KELLOGG: I do not intend to bring forward a cure-all for croup. I know it is a terrible disease, and I have made a practice until we gave this first child turpentine, if I found a child with strong contraction of the sternum, crowing cough and difficult respiration, to tell the family I could not do any more for the child; and I never had a single case, I think, when I was sorry I made that prognosis; but I believe that if enough turpentine is given, that there are cases in which it is of immense benefit. I believe I have sat and watched children die that might have been saved if I had given them enough of the drug; and it does not pay to give it for a few hours and then stop, but give it in large doses and give it continually. In one of those cases I went every morning and expected to find the boy dead when I got there; you could hear his respiration plainly outside of the house, a long drawn inspiration; he was cyanotic, his extremities (both hands and feet) were cold; his heart was weak; but he was kept on turpentine for between three and four days before there was very much benefit, and then he made a rapid recovery. The membrane came off in flakes, mixed with saliva and foam.

DR. FRENCH: I have performed tracheotomy and I have performed intubation. I did have one case recover of intubation, a girl of 14; and she got nothing internally but the old mixture of iron and potash. The formation of the membrane seemed to stop as soon as intubation was introduced and never returned; I never saw the membrane afterwards; previous to that, however, I could pick it out of the larynx with the laryngeal mirror; but it formed so fast that I saw it was no use in bothering any longer and I therefore performed intubation.

Society Reports.

STATED MEETING OF THE MEDICO-CHIRURGICAL SOCIETY OF LOUISVILLE.

Stated meeting May 27th, 1892.

THE PRESIDENT, DR. WM. CHEATHAM, in the Chair.

DISTURBANCE OF CIRCULATION TREATED WITH STRYCHNINE.

DR. TURNER ANDERSON:—I wish to call your attention to this patient. He is a teamster and has been doing a good deal of hard work for the last two years or more. The point I want to call especial attention to is the irregularity in the circulation. His health all the time has been quite good; there has been no apparent disturbance of the heart, but recently he has been suffering very much from headache. I thought that possibly the trouble might be central in the brain, but an ophthalmoscopic examination by Dr. J. M. Ray reveals no evidence of a brain lesion, and I have not been able to detect any lesion of the heart. The patient states that he does not use tobacco to excess, smokes probably two or three cigars per week, does not chew at all. Drinks largely of coffee. The very marked disturbance in the circulation has been present for about two months. The only treatment has been strychnia in one-sixtieth grain doses three times per day.

PULSATING TUMOR.

CASE No. 2—This little girl about five years ago was struck a blow upon the cheek with a hickory stick, which was followed by a great deal of contusion. I did not see the case at the time. After the swelling, contusion, etc. had passed off it left this pulsating tumor. When I first saw the case about a year ago, I could stop the pulsation of the tumor by pressing the finger upon the blood vessel. There seems to be no change in the form or size of the tumor since the patient first came under my observation, except possibly it is a little larger.

ACQUIRED HYDROCEPHALUS.

CASE No. 3—The next case I want to show you is a case of acquired hydrocephalus. This case shows that troubles in families never come singly. A little girl in the family sustained a fracture of the lower extremity of the humerus, then about four weeks ago at the time I was called to attend the case of fracture, this child (the case presented) who had always been perfectly healthy, developed symptoms of cerebral disease, began vomiting, constipation, crying, etc., and the vomiting has continued. The cause of the trouble is intracranial effusion, and is simply a result of meningitis that is chronic in character and comes under that head which would be considered acquired hydrocephalus. I have watched the progress of the case, and it is one of considerable interest to me.

LACERATED CERVIX.

CASE No. 4—The next case I will show you is a woman upon whom I operated on the tenth of April last for lacerated cervix. The history of the case is that she was married in November, 1890; about six or seven months later she had premature labor—a very serious, hard labor—and did not get up afterward with any degree of satisfaction. In a short time she was able to be about the house, but did not regain her health. Four months after the miscarriage, laceration of the cervix was diagnosticated and an operation performed by her attending physician for its relief, which however was unsuccessful. She then took to her bed three weeks after that and remained in bed from that time until the tenth of April when I performed this operation for laceration of the cervix. It was a unilateral laceration and there was a great deal cicatrical tissue shown in the angle of the tear; her symptoms were of the gravest kind. She suffered from serious reflex symptoms, among others great disturbance of respiration. She had suffered so much from disturbed circulation, respiration, and was so greatly depressed that a profound impression was being made upon the nervous system, and she was losing her memory; it was thought that she was losing her mind. She was greatly depressed, not being able to get out of bed at all; had to be carried from bed and placed upon the table for operation. Dr. Roberts was kind enough to come in and look at the operation, and Dr. Pierce administered the anæsthetic. Four silver wire sutures were used and one silk-worm gut. The silver wires were allowed to remain in for three weeks.

The union is solid and everything is as perfect as it could possibly be, gradually one symptom after another having passed off. She has gained very much in flesh, and can now walk about without any trouble. Before the operation there was great difficulty in her co-ordinating powers. Menstruation has been restored, she has now passed one period satisfactorily. The only symptom remaining is a little unsteadiness in her walk, which you will notice.

MYOSITIS OSSIFICANS.

DR. A. H. VANCE: This patient I saw for the first time yesterday. It is a very rare case, and one of a great deal of interest. I take it that it is a genuine case of myositis ossificans; the girl is now seventeen years of age; had acute pain in the muscular system, commencing when she was quite young. I find the ossific change has occurred in the following muscles: Quadriceps extensor, left thigh; biceps and triceps, right arm; both pectoral groups; both latissimus dorsi and the vertical muscles of the back. There is also a bony growth of ossified muscles about the larynx. I have only seen one other case of this kind, and the ossification in that was not nearly so extensive as this. I told this patient if she would come here and allow us to examine her, that we would consult together and try to devise some treatment, either surgical or otherwise to benefit her.

DISCUSSION.

DR. WM. BAILEY: From the casual examination I gave the young man presented by Dr. Anderson, the heart does not reveal any valvular lesion whatever. I believe the trouble is cerebral. Such conditions occasionally arise from the use of tobacco, but I doubt if his use has been sufficient to cause it. I believe there is no history of rheumatism or endocarditis, and I think the trouble is of nervous origin.

DR. D. T. SMITH: I quite agree with Dr. Bailey as to the nervous origin, but am inclined to doubt that it is central in the cerebro-spinal system. I think that the case will go on gradually to a fatal termination.

DR. W. O. ROBERTS: Referring to the case exhibited by Dr. Anderson, the little girl with tumor on the side of her face: We, of course, all recognize this as aneurism; aneurism involving some of the branches of the anterior temporal artery. It is the second case of the kind I have ever seen, the first being that of a railroad engineer who had his head bumped against the window of the cab. I do not remember just how long this case had been in existence before I saw it; pulsation, however, was not nearly so distinct as it is in the case presented by Dr. Anderson. I operated upon the man and he got well without any trouble. I think Dr. Anderson's case will have to be operated upon soon, or it will burst. The tissues over it are getting very thin.

Concerning the other case—that of lacerated cervix—I was fortunate enough to witness the operation, and the woman's condition is now very different from what it was when the operation was performed. At the time the operation was done, she was exceedingly nervous and hysterical. I have never seen such marked results follow an operation for laceration of the cervix. It was a very large tear, the tissues were greatly indurated. Dr. Anderson did the most thorough operation that I have ever seen; the parting of the edges and approximating of the lips of the wound were perfect. He followed the method of leaving the stitches in for a long time. I think a great many cases of failure in this operation are due to the fact that the stitches are removed too early. The best operators are now leaving them in two to three weeks. I think the result in this case is largely due to the length of time the stitches were allowed to remain in.

DR. TURNER ANDERSON: I will state that recent works on this subject advise that it is better to leave stitches in for at least three weeks. The last stitches are often taken out at the office of the doctor, the patient being sufficiently improved to come to his office. This case has shown excellent results all through, restoring the woman, who was bedridden for nine months, to the care of her house, to her home and friends.

DR. E. R. PALMER: Referring to the case exhibited by Dr. Vance, I would suggest that the best thing for this woman to do would be to hire out to some circus and exhibit herself as "the ossified woman,"—that would be a phase of Gold cure that I could most heartily indorse. In my opinion no treatment either medical or surgical would be of any benefit.

Dr. W. O. Roberts: It is an exceedingly rare affection. I saw something on the subject not long ago in the *British Medical Journal*; also saw a case about two and a half months ago that presented conditions very much like this, excepting that none of the growths were movable. This condition appeared in both lower extremities and I think in one arm.

Dr. D. T. Smith: The case presented by Dr. Vance is certainly very interesting. In the lower animals we find this condition known as myositis ossificans is not very rare. The Clydesdale and other heavy horses of that character, frequently have bony growths in the muscles of the legs, and I think the cause is some misdirection of the forces in the relation between bone and muscle formation elements, that has not yet been traced up.

Dr. A. M. Vance: I would like to have somebody suggest some treatment, probably it would have to be surgical.

Dr. H. A. Cottell: I have a distinct recollection of attending a show some two years ago in Cincinnati, and among other things they exhibited what they called an ossified man; to all appearances every muscle in this man's voluntary system (leaving out the occular muscles) was in the condition I take it this woman's muscles will be if the process continues. It seems to me that a case of this kind is hopeless, unless we can arrest the progress.

Dr. J. G. Cecil: I would like to ask Dr. Vance the history of this case, that is, how fast it has progressed, etc.

Dr. A. M. Vance: I do not think you could get the correct history. About six months ago while pumping water she experienced pain in the right arm. I suppose some shifting of the muscles caused this and they date the hardening process from this time. The mother, however, says the trouble has existed for a number of years.

ACUTE ASCENDING MYELITIS.

Dr. J. B. Marvin: I will read a short history of a peculiar case, which history was prepared and handed me by a roommate of the patient:

"Mr. R. H. M., aged thirty-two years. After his fifteenth year, was a man of delicate health though he took extremely good care of himself, except that he was a constant drinker of whiskey, but not to excess. When he was about fifteen years of age he was thrown from a horse and sustained an injury which confined him to his bed for a number of weeks, and also caused partial paralysis of the lower extremities. He made a very good recovery from the injury, though co-ordination was never fully re-established. Ever since the injury was received he has at times complained of pains in the small of his back and hips.

About five years ago, an eczema, as he called it, appeared on his body, and, from scratching, he caused a lesion on his leg, which developed into a chronic ulcer, lasting two years and healing finally but with much trouble. Treatment for the ulcer I do not know.

He had had according to his own statement, two attacks of gonorrhœa, the first five or six years ago; second while attending lectures here during 1891, from which he had not recovered at the time of his death. He came to this city February first, 1892, appearing to be in very good health and continuing so until three days before the final attack of paralysis. During these three days he complained of pain in the small of his back, and of soreness and stiffness of the muscles of his hips and legs with increased loss of co-ordination. On the night of the third day he had a paralytic attack, while asleep, of the lower extremities, and partial paralysis of the upper extremities, which gradually became complete, except sensation. He was able to move his toes for about two days, and could move his fingers for a little longer. He did not lose his speech until about ten hours before death. He lived four days after he was paralyzed. He died from loss of respiration.

His grandfather and two uncles died from paralysis, also one of his aunts. His father and mother are still living. His connections on mother's side were all stout, healthy people, though nearly all died from paralysis. None of his father's people died in that way. His father is a weakly man, and has a chronic sore leg.

I saw him in the morning with history that he had attended lectures the day before, but felt a little dizziness in going up the steps. That night he waked up and could not move his legs. The next morning early I saw him and he had perfect sensation, but loss of motion in both legs, and partial loss of motion in the muscles of the body; still he turned himself on his hips and moved his arms, though they did

not move as freely and easily as normal, it appeared to me. The paralysis rapidly extended, and he complained of a sense of oppression about the chest. His urine was passed normally. At first he had constant desire to pass the fæces, but later lost that feeling. The intellect was perfectly clear, and about all the pain he complained of was a heavy aching sensation about the back, which he thought was due to lying in bed in one position. This is about the history of the case. The paralysis rapidly extended involving the respiratory muscles, and causing death.

I succeeded in getting an autopsy, but was only allowed to take out the cord. Dr. Frank performed the autopsy. In the lower lumbar region the canal was very bloody, there were also under the membranes two or three segments looking like hæmorrhage. After several weeks hardening of the cord sections were made, which upon microscopical examination revealed evidences of meningitis, probably chronic and more recent diffuse myelitis.

This case seemed clinically to be one of Landry's paralysis, though the autopsy proved it to be a case of acute ascending myelitis, but myelitis that is central generally runs a different course from this and is attended with much more phenomena.

HEMIPLEGIA.

Dr. W. L. Rodman: I saw a case this afternoon in which I am in doubt as to the diagnosis, and would like to have some light thrown upon it. I saw the patient who is about fifty-nine years of age, with a physician of Jeffersonville, Ind., about six o'clock this evening, with the following history: A year ago last Febuary I saw the same gentleman two or three times during an attack of hemiplegia of the right side. The hemiplegia was rather complete, but he made a good recovery in the course of two or three months. He has been uninterruptedly well since that time, and it is now nearly a year and a half since he recovered from the attack of hemiplegia. Yesterday morning his wife left him in bed when she got up to go and see about the breakfast; in about half an hour he came into the dining room; she asked him how he was—said there was no particular reason for asking this as he was perfectly well the day before. He stood perfectly still and stared at her, and said that he thought he was going to die after she left him in their room. He was not able to walk, but his wife and daughter helped him to a chair and finally put him to bed. In a short time he had a convulsion which lasted about three minutes, shortly afterward he had a second convulsion; about eleven o'clock he had a very severe attack, it being the third, After this he became comatose, remaining perfectly unconscious for two or three hours. There have been no convulsions since; he could use both arms and both legs to-day perfectly well. He vomited all yesterday and last night; to-day he has not been able to retain anything on his stomach; until about noon when he drank a little mint water. The patient has been out of his head since the severe convulsion; he did not recognize me when I called, although I have known the man very well. He has no heart trouble, and there seemed to be no particular evidence of atheromatous degeneration in the blood vessels. There is no arcus. Left eye was slightly turned inward. Urine was passed freely, a sample of which I brought home and had an examination made, but no albumin was found. The patient had no fever; pulse was 140 per minute when first seen by his physician; it was 80 soft and regular when I saw him.

I would like to have an expression from the members of the Society as to the diagnosis—if there is a clot in his brain, where is it located?

Dr. Wm. Bailey: I have nothing especial except to say that I doubt about there being a clot, else I think from pressure there would have been paralysis somewhere. It may possibly have been simply meningitis. I saw mention made of this case in the daily paper, stating that he had been unusually taxed for days past. The paper gave the amount of work performed by him for the last few days. It would seem to me to be meningitis, notwithstanding there has been no variation of temperature. In Bright's disease we have a low temperature notwithstanding other conditions that would produce fever. Fever is not always an essential element in the symptomatology of inflammation; there may be counteracting influences which prevent the variation of temperature.

Dr. J. B. Marvin: It would seem to me that diagnosis would lie between one of two things. The first attack was probably embolus rather than clot. The sud-

denness with which recovery occurred and the completeness of the recovery would rather indicate to my mind a small embolus instead of clot. The second attack would seem to me to be cerebral congestion rather than meningitis. The suddenness of the attack would in my mind be against the idea of meningitis. I would not be satisfied with a single examination of the urine. Indications are strongly in favor of the kidneys being the seat of the trouble.

DR. D. T. SMITH: I perfectly agree with Dr. Marvin—of course we must all admit that we can only guess at the diagnosis in this case.

DR. W. L. RODMAN: The case is by no means clear to me. I do not agree with Dr. Bailey that it is in all probability meningitis; the attack was too sudden for anything of that kind. Furthermore, the history of the case makes it rather improbable for the attack to have been meningitis. I think the former attack was very likely due to a small clot rather than embolus. I believe that the present attack is either due to congestion as suggested by Dr. Marvin, or possibly to a clot not in the same situation as the former one, because it would produce paralysis, either of motion or sensation. Further examination of the urine will, of course, be made.

LAPAROTOMY.

DR. A. M. CARTLEDGE: I have a very interesting case to report, it being a little unusual in the way of ovarian trouble: On the fifteenth of March I was called to see a young married woman, twenty-five years of age with about the following history: Three days before that time her sister living in the country had married, and in preparations for the wedding, she (the patient) had done a great deal of work, lifting some very heavy vessels, and various other things. She had suffered from considerable pain in the left side of the pelvis, a bearing down sensation, ever since the wedding occurred. However she came to the city with the wedding party, was put up with some of her relatives, and one night in going down the steps of the stairs she was stricken with severe pain in the lower pelvic region, and was put to bed which was the occasion of my being called to see her. I found her in the greatest pain, all evidences of marked shock, etc. I was at a loss to ascertain the cause of it. Simply had to practice the expectant plan and gave her a little morphine. The next day found her more comfortable; I examined her at this time by the bi-manual method, but could detect nothing excepting that the pelvic structures seemed more or less indurated, and there was great tenderness. She finally became sufficiently well to go to her home in the country. When her menstrual period came on about the fourth or fifth of April, she had a repetition of all this suffering, only it lasted longer; for three or four days she had to be kept under the influence of opiates in order to get any relief. The pain now was principally in the left side. After this menstrual period, she was unable to move in bed, could not turn from one side to the other. I examined her very thoroughly this time and detected an induration to the left of the uterus rather high up. I concluded to treat her in bed and see if there would not be a decided improvemont in another month, or until the next period. This was done, and she was never able to sit up more then fifteen minutes without the pain becoming so severe that she would have to go back to bed. The menstrual period came again and it was simply a repetition of April, again she had to take the opiates in order to control the pain. After the menstrual period the early part of May you could detect by manipulation a hard induration in the left pelvis, there was also intense pain in that region. A laparotomy was performed at the Norton Infirmary about twelve days ago, and we found that the right ovary was entirely on the left side, behind the left ovary, very much swollen, twice the size of the left. Both the right and left tubes were very much enlarged and thickened, and a great deal of serum in the tubes; uterus was sunken and more or less retroverted, also very much engorged. Both appendages were removed. The patient has done well since the operation, sleeping better the first night without an opiate than she had with opiates for several months.

DR. C. SKINNER: I would like to ask Dr. Cartledge if there was any pus.

DR. A. M. CARTLEDGE: There was no pus. The tubes were very much enlarged, but, I took it, from mal-position.

DR. C. SKINNER: I am inclined to think that the elongation and displacement were caused by hydrosalpinx.

DR. J. A. LARRABEE: I simply rise to ask a question for information. It would seem that the displaced ovary gave rise to all the trouble. I want to ask the surgeon whether it would not have been proper, if it could have been done, to have replaced the ovary without removing it; that is, if that were the cause of the trouble, why would not relief have followed correction of the position of the ovary without its removal?

DR. A. M. CARTLEDGE: I will say in regard to Dr. Skinner's remark: It is very probable that there was some hydrosalpinx. The tubes were very large, and very long, and quite red in appearance. Probably hydrosalpinx had something to do with the trouble at the beginning. The question asked by Dr. Larabee would suggest itself: I did not think we were justified in doing a conservative operation, trying to replace the ovary on account of the apparent disease. The safest plan was to get rid of the appendages entirely.

SULPHONAL POISONING.

DR. J. B. MARVIN: I would like to ask for information: I saw a case a few days ago, a gentleman who had taken one afternoon and the following morning, in divided doses, two doses the first afternoon, and three the next morning, sleeping pretty well the first night, two-hundred and forty (240) grains of sulphonal. I know very little about this agent, have never given it in larger doses than twenty grains. This man went to sleep but he never woke up any more. I have been able to find out nothing about the toxic effects of this drug, nor the antidotes. I did not see the patient until some time after he had taken the last dose. Found him sleeping very heavily; pulse was normal and I said let him sleep and we will see what will be the result. I did not know at that time the enormous quantity he had taken. He had taken it on his own prescription, telling his wife that it was absolutely harmless, that he could take half an ounce at a dose. I found out afterwards that he had taken this dose. In the evening at six o'clock his pulse was under 100, respiration 32. I could not rouse him from the first, pupil responded readily to light. He would yawn and stretch himself like a man dead asleep, move his hands, lift his head up and turn himself in bed. I said to his wife that he could not die as long as he was in that condition, that we would just await developement. Early the next morning, much to my disappointment, he showed no evidence of coming from under the influence of the drug, pulse quicker, respiration quicker, circulation poor. Still had reflex movements, pupils responded to light drawing legs up in bed, and would still yawn. During the day this became less and less, and the pulse went up to 140 or more. He passed urine freely until an hour or two before he went to sleep. Kidneys seemed to secrete until the last. I drew off about a pint of urine by catheterization. The only treatment was nitroglycerine given hypodermatically.

THE TREATMENT OF TABES DORSALIS BY THE METHOD OF BONUZZI.

In the *Revue de Thèrapeutique Gènèrale et Thermale*, 1892, No. 2, p. 25, we find a clear and concise statement of this method, which it is hoped will yield results as satisfactory as those attributed to suspension, without, however, exposing the patient to the same danger, nor indeed requiring the use of any apparatus whatsoever. The experiments upon the cadaver have shown that the mechanical distention undergone by the spinal cord is three times as great in this method as in suspension. The patient lies upon the back, head maintained in an elevated position by means of a bolster. The lower extremities are flexed upon the body through a semicircle, the knees being placed upon the chest of the patient, the legs being held straight; the operator, seizing the diverging ankles, carries them strongly toward the floor. The result is, that the vertebral column is strongly flexed forward. This position must be attained with care, for it gives rise to backaches and swellings of the posterior aspects of the thighs, due to intra-muscular hæmorrhage. Benedikt reports a case where attacks of syncope and vomiting for many hours, with adynamia for several days, followed this treatment. It also has a greater effect upon respiration and circulation than does suspension; but the distention to which one subjects the trunk and limbs can be readily graduated, and if necessary, it can be immediately terminated. Benedikt reports that the gait of the patients was greatly improved, and the neuralgias markedly and constantly relieved.—*American Journal Medical Science.*

Selected Formulæ.

THE CYANIDE AND TRICYANIDE OF GOLD IN PHTHISIS PULMONALIS.

Dr. Oesterlen (*Pharmaceutische Zeitschrift für Russland; Le Bulletin Médical*, No. 101, 1891) recommends the following formula of the cyanide of gold in the treatment of phthisis:

℞ Cyanide of gold..... cgms. 18.
Chocolate..... gms. 45.

The cyanide of gold presents itself under the form of a yellow powder, insoluble in water, alcohol or ether. The crystals are only recognizable under the microscope. This preparation was proposed forty years ago by Chretien as a remedy for the treatment of pulmonary tuberculosis, scrofulosis and amenorrhœa. Later being forgotten, it recently has been proposed as a therapeutic resource in phthisis. The dose is from four to sixteen milligrammes several times a day. The tricyanide of gold comes in the form of large colorless crystals, which are soluble in water and alcohol. It has also been prescribed recently as a remedy in a phthisis.

SPECIAL TONIC (BELLEVUE HOSPITAL).

℞ Sulph. quinine..... 30 grains.
Tinct. nux vomica.....160 minims.
Tinct. chlor. iron.....160 minims.
Dilute phosphoric acid..... 1 fluid ounce.
Syrup to make..... 4 fluid ounces.
M. Dose, a teaspoonful.

POMADE FOR CERVICAL CYSTITIS IN WOMEN.

℞ Camphorated lanolin.....30 grms.
Ext. belladonna..... 2 grms.
M. Sig.—Introduce, morning and evening, into the vagina on a wad of cotton.

TREATMENT OF LUPUS ERYTHEMATOSUS OF EYELIDS AND FACE.

Brocq (*British Journal of Dermatology*, 1891) recommends in this disease:

℞ Salicylic acid..... 5ss.
Lactic acid..... 3ss.
Resorcin.....gr. xlv.
Zinc oxide.....3ij.
Vaselin.....5xvij.

The following is also usually well borne:

℞ Salicylic acid..... 1 part.
Pyrogallol..... 2 parts.
Vaselin.....20 parts.

This is to be rubbed in at night. During the day the first named may be applied, the two being thus used conjointly.

TONSILLITIS.

Dr. Eloy (*Medicinische Neuigkeiten*, No. 8, 1892) recommends the local application of salol in the treatment of tonsillitis, and as follows:

℞ Salol.....gms. 2 (grs. xxx).
Alcohol, q. s., ad. sol.
Glycerine.....gms. 40 (fl. ʒjss).

For the painfulness in swallowing, gargle with:

℞ Cocaine hydrochlorate.....mgm. 1
(gr. 1-64th).
Glycerine.....gms. 10.
(ʒijss).

Or use Huchard's mixture:

℞ Bromide of potash.....gms. 5.
(ʒij).
Cocaine hydrochlorate..... ....mgms. 5.
(gr. ¹⁄₁₂)
Glycerine..... } ää gms. 10.
Peppermint water..... } (ʒijss).

TREATMENT OF ASTHMA.

℞ Potassium iodide.
Lobelia tincture.
Senega tincture..... ää 2.00 grms.
Opium extract..... 0.02 grm.
Distilled water.....180.00 grms.
Sig.—Tablespoonful, mornings and evenings, in a wineglassful of water.

—Huchard, *Revue Générale de Clinique et de Thérapeutique; Merck's Bull.*

ANODYNE LINIMENT.

℞ Camphor.....120 grains.
Chloral.....120 grains.
Chloroform.....120 minims.
Ether.....120 minims.
Tincture opium..... 60 minims.
Oil sassafras..... 60 minims.
Soap liniment to make..... 16 fluid ounces.

FOR DYSPEPSIA.

For pain in the chest which comes on half an hour or an hour after food, take the following:
Take of

℞ Tincture of nux vomica.....10 drops.
Acid hydrochloric dilute.....10 drops.
Chloroform water..... ½ ounce.
Mix, and take immediately after meals.

LOOMIS' TONIC.

℞ Sulph. quinine..... 15 grains.
Tinct. chlor. iron.....180 minims.
Spirit chloroform.....180 minims.
Water..... 1 fluid ounce.
Glycerin to make..... 2 fluid ounces.—M.
Dose, a teaspoonful.

DANDRUFF.

Dr. Stephen (*Lo Sperimentale*, No. 18, 1891) praises the following:

℞ Resorcin..... } ää gms. 10.
Ol. olivar..... }
Ether..... }
Alcohol rectificat..... gms. 200.
Shake well and apply with a stout brush.

PURGATIVE INJECTION.

Dr. Porter (*Le Progrès Médical*, No. 50, 1891) recommends the following:

℞
Extr. bil. bovis.....gms. 25.
Glycerin.....gms. 100.
Ol ricin.....gms. 50.
Aquæ.....gms. 25.

Mix with one pint of warm soap and water.

DIABETES.

The following mixture is praised by Vigier:

℞
Lithii carbonat.....30 grains.
Sodii arseniat.....1 grain.
Ext. gentianæ.....15 grains.

M. et div. in caps. no. xx.
Sig.—Take one capsule morning and evening.

INJECTION FOR OZÆNA.

The following is Sidlo's formula:

℞
Potass. chlorati.....6.
Glycerini.....30.
Aquæ destillat.....300.

M. To be injected, several times daily, in ozæna. Small rolls of cotton wet with a solution of glycerin (1 in 3) are also introduced thrice daily, and allowed to remain for one hour each time.

PRURITUS ANI.

Dr. Joseph M. Matthews has obtained excellent results from:

℞
Benz. oxide zinc oint.
Campho-phénique.....ää 3ss.

M. Apply as often as necessary.

The campho-phénique may likewise be used pure, without detriment to skin or mucous membrane.

ECZEMA OF SCALP.

In inveterate eczema of the scalp Dr. Bedford Brown (*Maryland Med. Jour.*) found the following lotion by far the most certain:

℞
Ol. ricini.....fʒiv.
Bay rum.....fʒij.
Acid salicyl.....ʒij.
Resorcine.....ʒi.
Quinine sulphat.....grs. x.

This very active parasiticide is to be applied over the scalp night and morning and rubbed into the skin. He believes that perseverance in the use of this remedy will not only relieve most cases of this kind but will promote the growth of the hair.

OINTMENT FOR HÆMORRHOIDS.

℞
Hydrochlorate cocaine.....gr. xvj.
Sulphate of morphine.....gr. v.
Sulphate of atropine.....gr. iv.
Powdered tannin.....gr. xvj.
Vaseline.....ʒj.
Essence of rose, q. s.

Make an ointment and apply to the affected parts after each movement from the bowels. It is necessary to have the discharges of soft consistency.

—*Journal American Medical Association.*

FOR THE PAROXYSM OF ASTHMA.

℞
Morphinæ sulphat.....gr. ¼.
Atropinæ sulphat.....
Nitro-glycerini.....} ää gr. $\frac{1}{100}$—M.

Sig.—Add to sufficient sterile distilled water, and inject hypodermatically at the onset of the paroxysm.

REMOVAL OF EXTRAUTERINE FŒTUS FIVE MONTHS AFTER TERM: RECOVERY.

Delaissement (*Annales dé Gynec. et d' Obstèt.*, May, 1892) operated on May 7th, 1889, on a single woman, aged 20, who had become pregnant after the cessation of the menses in Febuary, 1888. On December 13th, 1888, labor pains came on two days later the fœtal movements; were plainly distinguished, and the heart sounds were audible. The cervix was like that of a virgin. By December 17th the pains had ceased. Afterwards the catamenia returned, the fœtal cyst remained as a tumor, resembling a large fibroid, and extending to the left hypochondrium. The tumor did not press down into the pelvis, the uterus was distinct and pressed forwards, and to the left. On May 7th the operation was performed. The fœtal cyst was not adherent to the abdominal walls; there was a fluctuating area on its upper part. In order to cut off all communication with the peritoneal cavity, sutures were passed through the cyst wall on each side of the wound. A brownish fluid escaped through the two uppermost suture tracts. The cyst was opened between the sutures. The fœtus lay aransversely, with the head to the left. The placenta, very thick, was attached anteroinferiorly; it was as tough as though macerated in alcohol, and was not vascular. The cavity of the cyst was washed out with hot water containing chloroform, and dresesd with carboltzed gauze; a large drainage tube was inserted. High temperature, with alarming symptoms, followed, and did not abate until the fifth day, when the placenta began to separate. Delaissement believes that the fever was due to infection of the peritoneum by the two upper sutures, and observes that sutures so applied should be made to pass along the substance of the fœtal cyst wall, and never across the cavity of the cyst. By June 5th all the placenta had come awaf. A year after the operation the patient was seen by Delaissement: She was in excellent health, and the catamenia were regular. There was a slight hernial protrusion inferiorly.—*British Medical Journal.*

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Leading Articles.

ETHER VERSUS CHLOROFORM AS AN ANÆSTHETIC.

The subject of this article is truly a hackneyed one, yet one in which every practitioner of medicine must always feel a keen interest. It has not been long since every medical periodical both in this country and abroad was teeming with articles on the merits and demerits of chloroform—this unusual and general interest having been excited by the labors of the Hyderabad Chloroform Commission under the able leadership of Dr. Lauder Brunton, of England.

The preference given to ether in this country and to chloroform in Germany are acknowledged facts. The position occupied by surgeons in other countries has been varying, each of these great anæsthetics having in turn been credited with the greater advantages outweighing their disadvantages. Both, unfortunately, have their disadvantages and dangers, but until the ideal anæsthetic has been discovered we must be content with what must prove the "lesser evil."

Poignant didactic arguments, based upon experimental researches, are always both interesting and instructive; and, therefore, a brief consideration of one of the most thorough and recent contributions on this subject may not be without good. The writer, Professor Julliard, of Geneva, published his paper in a recent number of the *Revue Medicale de la Suisse Romande*. "Ether," says Julliard, "is almost exclusively used by the surgeons of the United States and of Lyons, who never cease in extolling an anæsthetic so much less dangerous than chloroform."

The statistics gathered show a ratio of one death in every 3,258 cases of chloroformization, and one death in every 14,987 cases of etherization. The innocuity of ether—innocuity compared with that of chloroform—is incontestable, and all that

hinders its universal adoption as an anæsthetic are the several inconveniences that accompany or follow its use. In order to justly weigh the merits and demerits of ether, Julliard discusses these singly and without bias, and the result is markedly in favor of ether.

What are the disadvantages of ether?

First, it is disagreeable to the patient. The inhalation of choloform is far more acceptable. Yet who, exclaims Julliard, would be guided by a question merely of pleasantness when it means the employment of a drug four or five times more dangerous to life? There is undoubted force in this argument, but the nausea, retching and vomiting so frequently induced by ether must still be regarded as a serious objection, capable of not only delaying the operation but also of weakening the patient, and not infrequently jeopardizing an ultimate good reaction from the operation.

Second, there is more difficulty in the administration of ether, and generally a more or less complicated apparatus is required. This objection, according to Julliard, is really without foundation. In truth, while ether inhalers in vogue are generally more complicated than the simple chloroform inhaler, yet their comparative complexity neither renders them awkward nor cumbersome in the hands of an experienced anæsthetizer. But apart from this, any complicated apparatus can be dispensed with.

Third, ether is less active than chloroform, and its action is considerably slower. While acknowledging this to be a fact, Julliard does not regard it as an objection, but rather as an advantage. In the first place, he has observed that even ether induces anæsthesia within five or six minutes in the majority of cases—surely satisfactorily rapid. Again, in such cases in which anæsthesia is not as quickly induced, naturally a larger quantity of the anæsthetic would have to be used, be it ether or chloroform, and in this event the use of the more slowly acting and less powerful poison should surely be given the preference.

Fourth, another objection to ether that may be raised, and which has frequently been offered by the supporters of chloroform, is that the complete insensibility obtained by chloroform cannot be produced by ether. The experiences of Julliard and other writers, however, fail to confirm this objection. On the contrary they have been able to produce a condition of insensibility equally as profound as with chloroform.

Fifth, it has also been claimed that the period of excitation is longer with ether and occurs more frequently. This has long been regarded by many as a most serious objection, but Julliard's experiments fail to show any appreciable difference in the periods of excitement of the two drugs.

Sixth, an objection to ether is its inflammability. In this respect chloroform has undoubtedly an advantage over ether. Still, if the lights are well placed above the patient, there is nothing to fear when the use of artificial light is demanded. Julliard has also used the thermo-cautery upon the thorax during anæsthetization with ether without harmful results.

Finally, another objection urged against ether is its irritating action upon the mucous membranes; producing cough, salivation, and an increased bronchial secretion. These unpleasant phenomena, while occuring occasionally, are not of a serious nature and may frequently be greatly lessened or entirely overcome by the proper administration of the drug.

The conclusions of the author, based upon fifteen years' experience with chloroform and fourteen years' experience with ether, may be briefly summed up as follows:

First, that ether is far less dangerous than chloroform.

Second, that the anæsthesia produced by ether is equally as complete and profound as that occasioned by chloroform.

Third, that the inconveniences of ether, absent in chloroform, may be greatly lessened by a proper administration of the drug.

Fourth, that the only contraindications for ether are its inflammability, and its action upon the respiratory mucous membranes in cases where these are diseased or are in bad condition.

The mask used by Julliard for the administration of ether resembles the simple chloroform mask with the following modifications: the outer portion is covered with some impermeable cloth, either mackintosh or rubber, to prevent the too rapid evaporation of the drug; it is also sufficiently large to permit of free respiration. The inhaler or mask is 15 centimetres long, 12 wide and 15 deep.

So much for Julliard's experiences and experiments. But he is not alone among Swiss and German surgeons in advocating the use of ether. Among German physicians in particular, who for a long time almost exclusively used chloroform as an anæsthetic, the gradual change of feeling is most marked. Garré, in the *Münch. Med. Wochenschrift*, gives the results of his experiments with both anæsthetics in a large number of cases, and heartily endorses the use of ether as a surgical anæsthetic in preference to chloroform. In 400 surgical cases in which ether was used as an anæsthetic, he observed that in those patients suffering from an organic lesion of the heart the drug was well borne and even exerted a beneficial action upon the affected organ; while in cases of respiratory troubles the irritative properties of ether rendered its use very objectionable. He concludes, therefore, that ether is preferable to chloroform in patients suffering from cardiac troubles; but on the contrary that chloroform is preferable to ether in cases of bronchial catarrh and similar affections. Garré found that anæsthesia occurs on an average in about four minutes, and that about 80cc. are required to maintain anæsthesia for a half an hour.

Dr. Frieter, in a recent issue of the *Deutsche Zeit. für Chirurgie*, also pleads the cause of ether as a general surgical anæsthetic; and Dr. Butter, in the *Archiv. fur Klin. Chirurgie*, speaks most highly of ether as a substitute for chloroform in general surgery.

A great advantage of ether over chloroform, as recently pointed out by these investigators, is the rapidity with which patients recover from the effects of ether as compared with chloroform. Death from anæsthetization syncope, they also claim, will almost be unknown should ether be used instead of chloroform.

Thus an anæsthetic, the superior merits of which have long been recognized by the surgeons in this country, is now only gradually asserting its claims among our professional brethren abroad.

ACETONÆMIA.

From a clinical and experimental study of the subject, Boesi (*Riv. di clin. et terap. Rev. Intérn. de Bibliog. Med.*, April 25, 1892) has drawn the following conclusions: 1. Acetonæmia exists in the physiological state, as has been sustained by Jacksh, Baginski, and others, its amount fluctuating from 12 to 15 milligrammes. It does not become a pathological process until it has passed this quantity. 2. An experimental acetonaemia can be produced by the administration of agents which especially destroy the blood, such as pyrodine. A lack of oxygen in the blood is an auto-intoxicating cause of acetonæmia. Pathologically, the condition is observed in malarial anæmia, in catarrhal icterus, in the febrile acetonæmic state whose cause resides in the destruction of the blood-cells and the albumin of the tissues themselves. 3. The acetonæmia of intestinal origin is not dangerous, but it has of late been exaggerated. The diminution in the alkalinity of the blood is not the cause of acetonæmia, but a phenomenon belonging to the order of the auto-intoxications.

Book Reviews.

DISEASES OF THE EYE. A Hand-book of Ophthalmic Practice for Students and Practitioners. By G. E. de Schweinitz, M. D., Professor of Diseases of the Eye in the Philadelphia Polyclinic; Lecturer on Medical Ophthalmology in the University of Pennsylvania; Ophthalmic Surgeon to the Philadelphia Hospital, and to the Children's Hospital and Infirmary for Nervous Diseases. 216 illustrations and 2 chromolithograph plates. Philadelphia: W. B. Saunders, 1892.

No one who is at all interested in the study of ophthalmology can fail to appreciate this latest contribution to the standard text-books on this subject. Close observation, a keen sense of appreciation, an association with the best minds engaged in the study of ophthalmology in Philadelphia, a rich practical experience, together with careful study, have eminently fitted the author of this admirable work to give us the best American text-book that has been published in this special field of medical science.

A critical reading aided by a comparison with other standard works of the kind convinces us that it is destined to fill a prominent place among the standard works upon diseases of the eye. It is pre-eminently a book for those wishing a clear yet comprehensive and full knowledge of the fundamental truths which underlie and govern the practice of ophthalmology. The author has kept well in view his purpose in preparing the book.

It is seldom that we find greater clearness of expression, combined with a graceful and pleasing style, than is here shown in the elucidation of general optical principles, methods of examination, symptomatology and diagnosis. Everywhere the text has been systematically arranged; this is particularly true of the description of the symptom-groups, which include under minor headings the variations caused by the different grades or types of the same pathological state. The section devoted to the consideration of general optical principles is excellently adapted for the use of students; being clear, concise and finely illustrated by appropriate diagrams.

The chapter upon refraction is contributed by James Wallace, M. D., and it is of such excellence that it creates a wish that it had been expedient to make it more extended. The author's long experience in the eye department of the University of Pennsylvania Hospital is itself evidence that this portion of the work has been in competent hands.

The section upon retinoscopy was contributed by another able ophthalmologist, Dr. Edward Jackson, Professor of Ophthalmology in the Philadelphia Polyclinic. It is needless to say that this part of the book is also exceedingly well done.

Taken together we think that with such a clear and most excellent exposition of the principles of ophthalmology, written by such entirely competent men, there will be little need for European text-books upon this subject; for while symptomatology, diagnosis, and technique of the examination of the eyes have received the largest consideration, neither pathology nor treatment have been neglected. It justly may be pronounced a complete statement of the essential facts of ophthalmology.

Periscope.

THERAPEUTICS.

FACIAL NEURALGIA.

Dr. Stewart thinks hypodermic injections of ergotin in facial neuralgia to be superior to aconite or gelsemium. Generally one injection is sufficient, but sometimes two or even three may become necessary.—*The Medic. Anal. Gaceta Medica Catalana*, 10, 1890.

MICROCIDINE IN URINARY ANTISEPSIS.

Although there are many antiseptic remedies useful in the treatment of disorders of the urinary tract, Mabboux (*Lyon Méd.*, April 3, 1892) prefers, in the application of direct and indirect antisepsis, the employment of *microcidine*, which, as is well known, is composed of naphtol and caustic soda. The solution of this remedy is, according to the author, sufficiently efficacious for all manner of surgical antisepsis. It does not produce pain in the urethra nor in the bladder. In cases of cystitis, washing with microcidine are more advantageous than those in which boric acid is employed. The medicament is easily tolerated by the stomach, in doses of 2 grammes a day, producing good results. In direct antisepsis microcidine is not superior to salol, but it may be employed in patients suffering from albuminuria and other diseases of the kidneys, without causing untoward effects.

POISONING BY ATRACTYLIS GUMMIFORA.

This plant belongs to the order of the Compositæ, and is supposed to be of an edible nature. It has bitter and narcotic properties resembling those of poisonous mushrooms, and, like digitalis, is said to possess cardio-vascular powers. Two fatal cases of poisoning by atractylis are reported by Courcenet (*Arch. de Med. Milit.*, April, 1892). The symptoms observed were as follows: Pain in the stomach; great, burning thirst; vomiting; profound depression; muscular relaxation; loss of consciousness, and death by coma, but without convulsions. At the autopsy, there were found ecchymosis on the walls of the stomach, and hæmorrhagic foci in the kidneys; the blood was of a dark color and of a liquid consistency; sanguinous stasis in the abdominal viscera, the liver, and the cortical substance of the kidney. There were no lesions of the respiratory organs or of the nerve centres. The author points out the necessity, in medico-legal cases, of looking for the poison in the contents of the digestive tract, and especially in those of the stomach and the intestines.

GLYCERINE IN HEPATIC COLIC.

At a meeting of the Paris Academy of Medicine on March 8th (*Sem. Méd.*, March 9th, 1892), Ferrand read a paper on the treatment of hepatic colic by glycerine. The following are his conclusions: (1) Glycerine given by the stomach is absorbed unchanged by means of the lymphatics, especially by those passing between the stomach and the hilum of the liver and the gall bladder. (2) It is a powerful cholagogue and a valuable remedy in hepatic colic. (3) In relatively large doses—20 to 30 grammes—it brings an attack to an end. (4) In small doses—5 to 15 grammes—glycerine taken every day in a little alkaline water prevents fresh attacks. (5) Without being a lithontriptic, glycerine is the remedy *par excellence* for biliary lithiasis.—*Brit. Med. Jour.*

THE DANGER OF COUNTER-IRRITATION IN LOCALISED TUBERCULOSIS.

According to Parrachia Anacleto, counter-irritation in localised tuberculosis is attended with great danger. Miliary tuberculosis spreads, so rapidly from one organ to another by way of the veins and lymphatics that any irritation set up at the seat of the primary mischief cannot fail to increase the tendency of the disease to become general. Four cases which have recently come under his notice show this in a remarkable degree. Tuberculosis progresses slowly, but it allows of no violent remedies, and he thinks, until some method of treatment more successful than either the injection of tuberculin, or cantharidate of potash, or the application of blisters has been discovered, the danger of causing general infection by their adoption will still remain.—*Lancet.*

ACTION OF CAMPHORATED OIL.

At a meeting of the Società Lancisiana degli Ospedali di Roma on February 13th (*Gazz. d. Osp.*, March 8th, 1892), L. Taussia stated that he had used camphorated oil with good results in many cases of influenza in which collapse from cardiac paralysis appeared to be imminent, and in pneumonia, typhoid, etc. He gave the drug dissolved in oil of sweet almonds in the strength of 1 to 2, and sometimes 4 to 5 per cent. Essence of peppermint was useful in disguising the taste. Liberal doses (2 to 4 grammes *per diem*) were always given; the remedy was always well borne, and no disagreeable effects were observed. The remedy should be given before the patient is *in extremis*, when an active stimulant and expectorant is required, and when it is not contraindicated by the existence of great cerebral excitement. In cases of pneumonia, bronchopneumonia, and typhoid fever, the drug produced increase of arterial pressure, freer expectoration, and a feeling of physical well-being which lasted a considerable time. Taussia insists that only the best Japanese camphor should be used, the artificial preparation having, according to him, no therapeutic value.—*Brit. Med. Jour.*

PHENACETIN IN GONORRHŒAL RHEUMATISM.

Dr. Rifat (*Norsk Magazin for Lægevidenskaben*, No. 5, 1891) relies upon phenacetin in large doses when the salicylate of soda, iodide of potash and antipyrin fail. The first day one may give one gramme three times daily, then increase the dose

until six or eight grammes (1½–3 ʒ) are taken in a day. The patient must be watched for signs of poisoning—dyspnœa, cyanosis, vomiting, etc.

A NEW TREATMENT OF ACUTE GONORRHŒA.

Cotes and Slater (*Lancet*, London, February 27, 1892) describes a new treatment for acute gonorrhœa. The patient is first made to micturate, and thus remove as much discharge from the urethra as possible. The endoscope tube, warmed and oiled, is then passed into the urethra, the patient lying on a couch. As a rule, the passage of the instrument gives rise to but slight pain, but occasionally, in sensitive patients, a ten per cent. solution of cocaine, previously injected into the urethra, will be found useful. The urethra is then thoroughly mopped with dry cotton-wool, fixed in a stilet, and examined by the electric light. The exact limit of the inflammation can be clearly seen. It is, as a rule, quite five inches from the meatus; it may be four as early as the third day. The implicated surface is at once to be recognized by its swollen, bright-red appearance as contrasted with the rosy color of the healthy urethra. It is important not to pass the endoscope needlessly far back of the posterior limit of the inflammation, which is usually sharply defined. The diseased membrane should now be carefully mopped again so as to remove every vestige of secretion. A mop of cotton-wool, on a stilet, charged with a solution of nitrate of silver (10 grains to the ounce), should be pushed through the endoscope tube and out the distal end. The tube and the mop are then simultaneously withdrawn. For the two inches of urethra near the meatus a fresh mop is used, so as to completely saturate this part, where the disease commences, and the inflammation is most intense. Patients generally complain of slight pain afterward, which, however, passes away in the course of ten minutes. The patient is recommended to take a hot bath that night and remain in bed the following day. A saline purgative and an alkaline or copaiba mixture are given internally. From four to six times daily the patient should use a simple cleaning injection—say Condy's fluid, (one drachm to the pint). The forty-cases treated in this manner have been cured in a little over twelve days; a few cases had lasted for some days, and some were associated with chordee.

The principal points of this treatment are:

(1) The urethra can be cleansed so that the application comes directly in contact with the diseased membrane.

(2) The extent of diseased surface may be seen.

(3) The remedy is applied when the urethral walls are stretched, so that all furrows are obliterated.

They think that nitrate of silver is the best of all injecting fluids, from the fact that, in the strength of 1 to 2,000, it kills the organisms and produces very little irritation, and at the same time exerts a healing influence on the inflamed membrane.—*Univ. Med. Mag.*

MEDICINE.

INFLUENCE OF STOMACH WASHINGS ON THE ASSIMILATION OF NITROGENOUS ARTICLES OF FOOD.

In a very interesting thesis, J. A. Ouaroff, (*Wratch*, No. 51,1892, *Bull. Gen. de Therap.*, March 30, 1892) discusses this important practical point. The observations were made in five patients; 3 of whom were suffering from chronic catarrh of the stomach, and two with catarrh accompanied with dilatation of the organ. Five other observations were made on healthy individuals. Each experiment lasted 16 days, and comprised 2 periods of 8 days each, one of these *with*, and the other *without* the washings. Upon healthy persons the washings improved the assimilation of the nitrogenous substances in the following proportions: maximum, 3.75 per 100; minimum, 0.47 per 100; medium, 2.21 per 100. In 3 patients the assimilative powers were increased also, in the proportion of 2.79 per 100, for the maximun: 1.67 per hundred for the minimum, and 2.39 per 100 for the medium. In 2 patients the assimilation was diminished; in one, 1.13 per 100; in the other, 1.33 per 100. This diminution depends upon the retention of the liquid in the stomach. According to the author, the washing out of the stomach improves the function of the organ, diminishes

stagnation and fermentation, and increases, reflexly, the activity of the biliary and pancreatic secretions. Under the influence of the treatment, the bodily weight and the forces of the patient increase, showing the favorable action which the stomach washings exercise on nitrogenous assimilation.

HYSTERICAL ARYTHMIC CHOREA.

From an interesting thesis, published this year, by Dettling (*Rev. gener. de Clin. et de Therap.*, April 20, 1892), the following conclusions are drawn: 1. The theory regarding the co-existence and simultaneous development of Sydenham's choreas and hysteria, may hold good in certain cases, but exceptionally so. 2. The hypothesis which makes of common chorea a modification of hysteria, and which is based on very uncertain points, is rejected by the author. 3. The theory admitted by the French observer is that by which hysteria may simulate the arythmic movements of common chorea, producing a pseudo-chorea of a Sydenham type, and which he calls a hysterical arythmic chorea; but there is no such a thing as a Sydenham chorea of a hysterical nature. The hysterical arythmic chorea may, therefore, be placed under the same category as that of the pseudo-scleroses and hysterical pseudo-tabes. Hysteria may give rise to the production of a quite marked common chorea, but this arythmic chorea is to be differentiated from Sydenham's chorea. Its onset is sudden, and exhibits a variety of hysterical symptoms. Its duration is similarly various; it always gets well, spontaneously often, and frequently relapses if it occur. It ought to be looked upon as a prolonged attack of paroxysmal hysteria. The treatment should be of a tonic nature. Antipyrine has given good results in many cases.

MERCURIAL GASTRO-ENTERITIS.

In an experimental research, P. de Michele (*Rivista Clinica et Terapeutica*, Naples, XIV, No. 2, 1892) has endeavored to determine the nature of the lesions produced in the digestive tract, under the action of mercury, and which of those lesions are the least dangerous. The experiments were made on rabbits, and the modes of administration of the drug were such as are serially pointed out presently. No lesion was observed in the first series of experiments, while in the rest, the drug was found capable of producing a rapid and serious fatty degeneration of the mucous glands: 1. Hypodermatic or parenchymatous injections of calomel, according to the method of Sarenzio. 2. Albuminate or tannate of mercury by the stomach. 3. Injections of the albuminate, according to the formula of Miahle. 4. Internal administration of the protiodide of mercury. 5. Injections of corrosive sublimate. 6. Van Sweiten's solution or simple solution of corrosive sublimate by the stomach.

TEMPORARY DYSPNŒA CAUSED BY A TUMOR OF THE NECK.

The following case is reported by Pergens (*Archivos Internacionales de Rinologia*, No. 14, 1892): A country farm-boy, 16 years of age, had a tumor situated on the superior portion of the right side of the neck. He complained of aphonia every time a current of air struck him, and also of a sensation of constriction in the throat. On examination there was observed a distention of the skin at the superior part of the right side of the neck, and at the maxillary angle about two centimetres from the protuberance of the chin. The laryngeal mirror revealed nothing abnormal. During the condition of aphonia there was no change noticed externally, but in the larynx only the left vocal cord could be seen; the right cord was hidden behind a rounded protuberance, covered by a normal mucous membrane. After a few days, this condition disappeared; the voice came back and the intra-laryngeal swelling was greatly diminished. By an operation, the glands and the hypertropied submaxillary gland were raised. After this, a cure was effected and the symptoms of aphonia never returned. These symptoms were attributed to an inflammatory process, being produced by the action of cold upon the diseased ganglions.

DILATATION OF THE GLOTTIS IN LARYNGISMUS STRIDULUS.

Dilatation of the glottis, a valuable means to combat the spasm of the organ, should be employed in the symptomatic treatment

of the malady under consideration. The procedure consists in the introduction into the orifice of the glottis of a dilator with parallel branches; pressure should be made three or four times, and when the mucosities have been expelled the instrument should be removed. In a case reported by Constantin Paul (*Societe de Therapeutique*, February 10, 1892) the spasm ceased immediately. For a few moments the sibilant respiration and the access of oppression were noticed; but the child was able soon after to suckle.

SURGERY.

THE SURGICAL TREATMENT OF GRANULAR LIDS.

Darier, the chief of Abadie's Clinic in Paris, contributes an article in the *Archiv. d'Ophthalmologie*, February, 1892, concerning the treatment of granular lids, which has been found efficacious in this service. The following points are insisted upon:

(1) Anæsthesia with chloroform is indispensable in every case. (2) One of the most important conditions for the success of the operation is the complete eversion of the eyelids by means of special forceps, so that all points of the conjunctival cul-de-sac may be laid bare and submitted to grattage. (3) In order to attain this object it is very often necessary to enlarge the palpebral slit by incising the outer canthus and thus facilitating the exposure of every portion of the conjunctival cul-de-sac which is in the least affected with granular infiltration. (4) Scarifications are performed with the object of making the contents of the granulations apparent with the least destruction of the conjunctiva. (5) By means of a sharp scraper, and then of a brush composed of short, hard hairs, all morbid tissue is scraped and brushed as completely as possible. (6) An energetic and painstaking cleansing of the surface with a plug of cotton dipped in a sublimate solution, 1–500, ends the operation.

During the first day, iced compresses are applied and frequent lotions of sublimate solution, 1-2000. The patient should be examined daily, the eyelids everted, any sloughs detached, and the whole surface thoroughly cleansed with a sublimate solution, 1-500. At the end of fifteen days the conjunctiva presents a smooth, though somewhat tumefied, appearance, but granulations are invisible and there is no longer any secretion. In the event of the previous pannus, or other corneal complication, the improvement, dating from the first day of the operation, is stated to be surprising, and in the judgment of the reporter there is no treatment which has given such good results in so short a time. He attaches great importance to the regular use of a strong solution of sublimate, and recommends that the patients be watched for a month or two after the operation, and prompt interference be undertaken in case the smallest trace of the former disease should reappear.—*Ther. Gaz.*

HERNIÆ OF THE LARGE INTESTINE.

Gangolphe (*Lyon Mèd.*, January 17th, 1892) describes a case of hernia of the large intestine, from a consideration of which he makes the following generalizations: (1) Herniæ of the large intestine may be accompanied by an appendicitis in the hernial sack. (2) The localization of the inflammatory troubles to the hernia, the appearance of the fœtid suppuration without issue of gas or of solid matters, without serious functional troubles of the intestines, may perhaps in the future help in the diagnosis of this complication. (3) The radical cure, undertaken after a sufficient delay, is rendered particularly difficult, both by the adhesions which form and also by the difficulty experienced in recognizing the presence of the intestine. (4) As a general rule the necessary incision should be made along the antero-internal parts of herniæ, for in this way wounding the large intestine, should this be present, will be avoided.—*Brit. Med. Jour.*

OBSTETRICS.

DETERMINATION OF SEX.

The *Dublin Journal of the Medical Sciences* for March, quoting from *La Sperimentale*, says that "Dr. Serrano Montanel, of Valparaiso, read a paper before the last Chilian Medical Congress on the pro-

creation of either sex at will. After four years' observation, he had satisfied himself that we can pronounce upon the sex of an unborn fœtus if we know the number of menstruations which had occurred between the preceding delivery and the present pregnancy. If between the birth of one baby and the conception of the next an even number of menstruations have taken place, the second will be of the same sex as the first; if an uneven number, of different sex. This theory assumes the identity of menstruation and ovulation, which few accept, and also that ova discharged are of alternate sexes.

PHOCOMELOUS INFANT.

Martin Saint-Ange (*Jour. de l'Anat. et de la Physiol.*, No. 5, 1891) records a case of phocomelous monster with internal anomalies; the notes and description were found by Duvernet, and were published posthumously. The mother, aged 33, had previously given birth to two well-formed children. During her third pregnancy she had suffered from syncopal attacks and excessive irritability, alternating with melancholia. Fœtal movements were first felt at the sixth month, and were always very feeble. Labor occurred spontaneously at the ninth month, the breech presented, and delivery soon followed. There was some fibroid thickening of the placenta. The infant, which was living during labor, was born dead; it was of ordinary dimensions with the exception of the limbs, which resembled those of an embryo of a few months. There was symmetrical phocomely; each extremity terminated in six digits, which were very short and webbed; the bones of the carpus and tarsus formed an irregular mass; the two leg bones were united; the femora were nearly shapeless, and the humerus was normal in form but fused to the bones of the forearm. The heart was situated transversely, the foramen ovale was very large, as was also the ductus arteriosus, and there was a left superior vena cava, as well as the usual one on the right side. There was a large cleft of the palate, and the tongue, which was very small, was firmly fixed by a very short frænum. There were curious mammillated projections on the margins of the jaws. The right testicle was in the iliac fossa, the left in the scrotum. The penis was very small, and consisted of an imperforated glans and a divided prepuce. The urethral canal did not exist, but a duct passed from the inferior and posterior part of the bladder to the anal extremity of the rectum. This arrangement resembled that found in the monotrematous mammalia. A maternal impression was alleged as the cause, but, as it occurred late in pregnancy, this theory could not be entertained.—*Brit. Med. Jour.*

GYNECOLOGY.

RESECTION OF OVARIES AND TUBES.

A. Martin gives his (*Verhandl. d. Deutsch. Gesellsch. f. Gynäkologie*, 1891) experience of resection of ovaries and tubes, and expects that the operation will soon be recognized generally as a proper one. It is designed for the purpose of retaining for the woman her functional capacity. When, on removing one ovary or one set of adnexa, the other is found only partially involved in the disease, it need not be wholly removed. The diseased part of the ovary or tube is resected, and the remaining part is left, an artificial ostium abdominale being formed in the case of the tube. His results of resection of ovaries are—21 cases, 1 death from peritonitis. Of the 20 survivors, 5 have become pregnant, one operated on in May, 1888, having had 3 children. He has had 24 cases of resection of tubes,—1 death from general infection of the peritoneum by gonococci. Of the 23 survivors 1 became pregnant, but aborted in the third month.

ASCITES IN WOMEN, UNASSOCIATED WITH CARDIAC, HEPATIC, OR RENAL DISEASE.

Gusserow (*Centralbl. f. Gynäk.*, No. 19, 1892) opened an instructive discussion on this subject at a recent meeting of the Berlin Obstetrical Society. He for many years has always made an exploratory incision in these cases, being ready to take away any removable morbid growth that may be discovered. The conditions which give rise to this form of ascites are, according to Gusserow: (1) tuberculous peritonitis or "peritonitis nodosa" where no tubercle bacilli can be found; (2) pa-

pilloma of the surface of the ovary; (3) carcinoma and sarcoma of the ovary, usually with similar disease of the peritoneum; and lastly (4) rare cases where ascites exists in association with small non-malignant uterine and ovarian tumors or with tubal disease. In all these cases there is absence of œdema of the integuments and no signs of disease of the liver, heart, or kidneys. He rejects exploratory puncture, whether by means of a hypodermic syringe or the old trocar. Schäffer said that the ascitic fluid in cases of dropsy from inflammation or irritation of the peritoneum is of a specific gravity always exceeding 1015; whilst in cases of dropsy from stasis—including hepatic cirrhosis compressing large veins, and tumors or aneurisms pressing on the vena cava, diseases which may for long show no other symptom—the specific gravity of the fluid seldom exceeds 1012. Hence puncture is sometimes preferable to incision. The apparent cure of many cases of suspected "tuberculous peritonitis," when the ascitic fluid has been evacuated, suggests a non-tuberculous "peritonitis nodosa" imperfectly recognized by pathologists. Mackenrodt believes in this distinction, and declares that he has never known a case of cure after incision where true tubercle of the peritoneum was detected. He has frequently seen a diffused vesicular disease of the peritoneum associated with ascites—"herpes peritonei." This affection was not malignant and the ascites did not return after incision. Ascites is sometimes caused by enlarged non-malignant retroperitoneal glands; incision seems to cure these cases. Mackenrodt objects to puncture, as it may involve hæmorrhage or damage to internal organs; in incision these accidents are rare, and when they occur cannot be overlooked. Winter has not entirely rejected puncture; it allows of bimanual exploration of the pelvic organs. Incision is not without danger, and hastens death in cases of carcinoma. Gottschalk believes in a distinct peritonitis nodosa, but incision, he stated, sometimes cures true tuberculous peritonitis. Jaque related a case of severe hæmorrhage following puncture. In reply, Gusserow said that a low specific gravity of the fluid does not necessarily signify that the cause of disease is not removable by operation. Puncture does not allow of so perfect exploration as does incision.—*Brit. Med. Jour.*

PEDIATRICS.

TREATMENT OF CHOREA.

From a study of this important subject, Jumon (*La Medicine Moderne*, No. 9, 1892) has formulated the following conclusions: 1. In common choreas, the best results are obtained from the use of antipyrine and arsenic. 2. In the rheumatic choreas, or with rheumatic manifestations, antipyrine is still indicated, but to this drug may be associated the salicylate of sodium and sulphur baths which are certainly useful. 3. If there should be a large amount of hysteric element, the bromides, according to Dujardin-Beaumetz and Ollivier, are to be employed; 4. Finally in cardiac choreas, instead chloral and hydrotherapy both of which are dangerous, the iodide of potassium and especially that of calcium should be used, 5. In all cases physical exercise is to be recommended; especially at the gymnasium, this being often of great advantage.

TYPHOID FEVER IN CHILDREN.

A. Moussous (*Arch. Clin. de Bordeaux.* No. 4, 1892) states that in a series of fifty consecutive cases of typhoid fever in children under the age of 15 years he had only three deaths. He fully accepts the opinion that the disease is less serious in childhood than in adult life; there is less prostration, less hebetude, and seldom much diarrhœa or pneumonia. At the same time the fever presents the same characters as in the adult, and is often high—104° and even more; the pulse rate is often also increased to 140, but this rapidity has not the serious significance which it would have in the adult, nor are complications so often observed. The disease, however, is more severe in infants under 2 years than in children above that age; this fact is called in evidence to support the view that one of the reasons of the comparative mildness of the disease in children is the activity of their digestive secretions, which tend to inhibit the growth of the pathogenic organism. Another reason he finds in the greater functional activity of the liver and kidneys leading to a more perfect elimination of the poisonous bodies produced within the organism during the fever. On this head Moussous presents some new observations. Bouchard and others have

shown that the toxicity of the urine is increased by typhoid fever, and that this toxicity persists for a varying period after defervescence, for as much as four or five weeks when the disease is treated by the expectant method, for still longer if antipyrin is used. With the cold bath method the toxicity of the urine is very high during the fever, but ceases quickly when defervescence has taken place (Roque and Weill); naphthol diminishes the production of the poisonous substances both during the fever and during convalescence. Moussous finds the toxicity of the urine in children suffering from typhoid fever is sometimes increased during the pyrexial period, sometimes at its close, but that in either case it becomes normal after a few days of freedom from fever. The elimination of the poisonous substances, therefore, in children who are treated by the expectant method very nearly resembles their elimination in adults treated by baths. Moussous does not recommend resort to baths in the case of children, and notes one case in which serious syncope followed cold sponging. He advises the administration of laxatives every other day, a copious milk diet and small doses of quinine. —*Brit. Med. Jour.*

HYGIENE.

VACCINATION STATISTICS.

There still are found numerous opponents of protective vaccination and no amount of evidence seems sufficient to convince their biased minds. Yet the following statistics, capable of but one interpretation, may prove of interest: In Riga, a city of 180,000 inhabitants, there were some 6,500 belonging to a religious sect living by themselves in a certain quarter of the town. These people opposed the practice of vaccination on conscientious grounds. Between the years 1882 and 1887, the average mortality from small-pox in the city was 108 annually. From December, 1886, to the end of March, 1887, about four months, there were 155 deaths from this cause, owing to a slight epidemic during that period. Of this number 71 occurred among the orthodox population, equal to 109 per 10,000, while the deaths among the remaining inhabitants numbered only 84, equal to 4.8 per 10,000. Down to the year 1887, as stated above, the average number of deaths annually from small-pox was 108. After this epidemic vaccination and revaccination were largely enforced, with the result that from 108 the annual number of deaths due to this disease fell at once to 8.

NUTRITIVE VALUE OF MILK.

A child brought up on milk alone, and weighing at birth 3,200 grams, will gain in weight as follows:

During the	1st	three months.....	23.35 gr. daily
"	2nd	"	16.35 "
"	3rd	"	13.5 "
"	4th	"	8.00 "

Making the increase of weight during the first year about 6 kilograms.

During the 2nd year the increase in weight will be about 2 k. 000 gr.
During the 3rd year the increase in weight will be about 1 k. 200 gr.
During the 4th year the increase in weight will be about 1 k. 700 gr.

Making up to 5 years, a total increase of 12 k. 570 gr.—M. P. Cules, *in Rep. de Pharmacie.*

THE TRANSMISSIBILITY OF CARCINOMA

At a meeting of the Académie des Sciences, Duplay and Cazin (*La Mèdecine Modérne*, 1892, No. 8, p. 113) reported the results of investigations as to the inoculability of carcinoma. In a first series, comprising twenty-two observations, they inoculated, either subcutaneously into the peritoneum or into the blood, rabbits, guinea pigs, and dogs, with carcinomatous material obtained from man, in all instances with positive results. In a second series of experiments they inoculated animals with carcinomatous material obtained from dogs, but without producing more than a local inflammatory lesion, which underwent absorption. Attempts to transmit carcinoma from dog to dog also failed.

MEDICAL CHEMISTRY.

EGGIO.

This is a commercial article, presumably made from the yolks of eggs, the whites of which have been used for preparing egg albumin. An analysis recently made by C. S. Boyer, and reported to the Chemical Section of Franklin Institute, gives its composition by analysis as water, 53.75 to

56.91 per cent. ash, 9.47 to 19.25; fatty acids, 14.66 to 16.00. The yolk of egg examined by same method gives water, 51.8 to 53.72; ash, 1.0; fatty acids, 20.0. The conclusion is that the ash indicates the presence of sodium salts to prevent putrefaction, the presence of a little more water, and a little less of fatty acids than the egg yolk itself.

REAGENT FOR TANNIN.

Bæmes (*Monit. de la Pharm.*, 1891, 1006) uses as a reagent for tannin a solution containing in 10 cc., 1 gm. sodium tungstate and 2 gm. sodium acetate. This yields with tannin in acid or alkaline solution a straw-colored precipitate which is insoluble in water. The reaction is said to be very sensitive.

LITHIUM NITRIDE.

By heating lithium in a current of nitrogen gas, Ouvrard (*Comptes Rendus*, cxiv-120) has obtained a product containing 38 to 56 per cent of nitrogen, and his analysis leads him to conclude that the compound formed may be represented by the formula Li, N, or ammonia in which the hydrogen is replaced by three atoms of lithium.—*Pharm. Journ.*

ANTIPYRINE AND EUPHORINE.

When these two bodies are triturated it becomes difficult to obtain a powder that will admit of subdivision into papers. To overcome this, J. Mindls in the *Prag. Rdsch.* adds a little sugar and mixes with a spoon or spatula. A better powder may be obtained by rubbing the sugar first with a little bicarbonate of sodium before adding the medicaments. Powdered licorice root answers even better than sugar.

EXODYNE.

Exodyne (*Odyne*, pain) marketed by by the Orange Chemical Co. as the greatest analgesic and antirheumatic, consists, according to F. Goldmann (*Pharm. Zeit.*) of approximately 90 per cent. acetanilid, 5 per cent. sodium salicylate, and 5 per cent sodium bicarbonate.

NEWS AND MISCELLANY.

BOTTLING UP CHOLERA BACILLI.

A significant commentary on the question of interment in city cemeteries *v.* cremation is suggested by the incidents connected with a proposal in the Leeds Corporation Bill to drive a street through St. Mary's Churchyard, where a great number of cholera cases were interred, and Dr. Spottiswoode Cameron, in reporting against the proposed improvement, says: "The whole of the district is shale and clay. The corpses have, therefore, been bottled up for these sixty years in a practically impervious casing. I find there has been no epidemic in that neighborhood within memory of my present inspectors, and I find no record of any whatever. My own feeling about the matter is that I should be inclined to let well alone. Although the chances are strongly that, during the sixty years that are gone, the coma bacilli have died of inanition, there is a possibility that it may not be so, and that the opening of these graves might lead to disaster." The clause will be withdrawn and the clay-conserved bacilli left at rest. —*Brit. Med. Jour.*

TRICHINOSIS OF THE TONGUE.

A curious and interesting case, albeit somewhat difficult to understand, is recorded by Dr. Oitiz of Toire. The patient was a man, æt. 50, a robust countryman, with no history of syphilis nor of tuberculosis, who came for advice with an ulcerated growth of his tongue. The disease had been in progress about a year, and presented the characters of an epithelioma. Some misgivings, however, were expressed about the precise diagnosis, inasmuch as the ulceration was not of that foul nature such as usually occurs in connection with malignant disease. No improvement having followed the treatment adopted after a trial of a fortnight, it was decided to amputate the tongue. This was successfully performed, and on examination of the organ subsequently, the disease was found to be trichinosis, ulceration of the thickened tissue around the cysts having taking place.—*Med. Press.*